Application form
DUKO – Dampspærre- og Undertagsklassifikationsordning

Unauthorized translation – in case of inconsistencies the translation is Danish version will supersede the English version.

The application form has to be filled out by producers or suppliers that wish classification of a product under the DUKO voluntary classification scheme. One application form has to be filled out for each product that is to be classified. It is the responsibility of the applicant that all relevant information such as installation manual, wrapping (i.e. relevant information printed on the packaging) and product sample is forwarded to the secretariat as numbered annexes.

The first part of the application form covers
– Product information
The second part of the application form is aimed at a buildability assessment and contains 4 categories:
– Identification of the material (form 0)
– Details (forms 1.1-1.12)
– Storage and installation (form 2)
– Repair (forms 3.1-3.3)

Forms 1.1 - 1.12 concern 12 different roof design details. The 12 details must show the relevant sub-details (upper/lower corner etc.). The drawing on page 23 shows the details that must be addressed. The forms are intentionally designed in a uniform way.

The forms 3.1 - 3.3 concerns repair of 3 types of damage on roofing underlay.

Buildability

The forms concerning buildability are intentionally designed in a uniform way. First a yes/no question is posed. If the answer is yes, limitations regarding roof pitch shall be indicated. In some cases, the roof pitch is irrelevant, and the corresponding cell is greyed out in order to indicate that it shall not be filled out. There has to be supplied documentation to the answers. Depending on the character of the question, the documentation can be a reference to the installation manual, a sample of the product, a series of photos of the installation process or similar. All documentation should be numbered and placed as annexes to the application. References to the proper annex no. and page in the annex must be given.

Assessment of buildability

The buildability is assessed on the basis of 4 types of information:

Identification of the material
The information in this part of the application form is assessed for quality assurance at the manufacturing plant, information accompanying the product to the construction site and information on the product itself in order to facilitate traceability of the product also after installation.

Details
This part of the application form relates to the installation manual and the details therein. The installation manual must contain drawings (or photos) and short descriptions in text. In the buildability assessment of the details emphasis is paid to simple and readable descriptions and also to photo doc-

umentation of the details in 1:1 (using a mock-up or real constructions). When the use of accessories is necessary, positive assessment is given when the accessories is marketed in connection with the underlay. If the accessories are not marketed in connection with the underlay the relevant type of material must be stipulated in order to ensure chemical compatibility. Finally, documentation of the durability of the accessories is asked for.

Storage and installation

This part of the application form relates to usability of the product and limitations that the product inflicts on the construction work. Positive assessment is given when limitations in storage and installation are presented on the outside of the package. Also, positive assessment is given when the installation manual is easily accessible, for instance included in the package containing the underlay when shipped to the construction site.

Repairs

The installation manual must contain a description of the repair methods. The installation manual must state which types of material that, in order to ensure chemical compatibility, can or cannot be used for repair. The supplier of the underlay must supply repair materials. It is assessed whether repairs can be made all year and whether repair can be made on a moist underlay. There must be documentation of the durability of the repair material.

Scale

Each of the 4 types of information is assessed according to the paper "Vurdering af bygbarhed" on the scale:

– God (Good)
– Acceptabel (Acceptable)
– Dårlig (Poor)

References

Assessment of buildability will be made on the basis of the so-called ”alment teknisk fælleseje”. “Alment teknisk fælleseje” is a sort of common law used in Danish courts when it comes to settlement of disputes concerning construction. As judges in Danish courts have no special knowledge on construction (only on law) an expert witness is appointed by the court (not to be confused by expert witness hired by the disputing parts). These appointed expert witness base their guidance of the judges partly on what is commonly seen as acceptable at the time the building was erected, partly on written sources information that there available. At http://duko.dk/viden-om-undertage references to what DUKO see as ”alment teknisk fælles” concerning roofing and underlays is given.

Self-evaluation of buildability

Make a self-evaluation of buildability by filling out a copy of the forms on pages 24-27 (the self-evaluation shall NOT be submitted to DUKO).

Product information

Product name		
Supplier	Contact person	
	Address	
	Postcode and town	
	Phone no. / fax.no.	
	Website (www)	
	E-mail address	
Producer	Address	
	Postcode and town	
	Country	
	Phone no. / fax. no.	
	Website (www)	
	E-mail address	

Type of underlay:	❑ Open to diffusion?	Z- value =	Units:
	❑ Diffusion tight?		
Underlay material:	❑ Roll	❑ Plastic	
		❑ Bituminous	
		❑ Other	Which type?:
	❑ Sheet material	❑ Wood fibre board	
		❑ Gypsum board	
		❑ Other	Which type:
	❑ Rigid underlay	❑ 1 layer bituminous membrane on plywood, OSB, boards or similar[a]	
		❑ 2 layer bituminous membrane plywood, OSB, boards or similar[a]	
		❑ Other material on plywood, OSB, boards or similar[a]	
		Which material?:	

a: Requirements to load-bearing capacity and stiffness of rigid underlays:

- MK-approval as a ”trædesikkert underlag” or a bending moment capacity: M ≥ 250 Nm/m (sheets), M ≥ 750 Nm/m (boards or similar).
- Flexural stiffness: EI ≥ 1 kNm²/m (sheets), EI ≥ 3 kNm²/m (boards or similar).

Documented tests *Manufacturers certified according to an internationally recognised quality assurance standard for development, production and control (such as ISO 9001) can use documentation from their own laboratories if the documentation is verified by the 3rd party QA auditor. This also applies to documentation of ”Service life, documented from in situ testing”.*	Test method	Documentation in annex no. / page no.	Test result and unit
❑ Water tightness (DS/EN 13859-1 / DS/ EN 1928 / DS/EN 13111 / DS/EN 14964)			
❑ Water tightness in overlaps (DS/EN 1928, Method A, Annex F)			
❑ Tensile strength (DS/EN 13859-1 /DS EN 12331-1 / DS/EN 14964) longitudinal/transverse			
❑ Flexural strength (DS/EN 14964)			
❑ Elongation (DS/EN 13859-1) longitudinal/transverse			
❑ Tear resistance (DS/EN 13859-1 / DS/EN 12310-1)			
❑ Mass per unit area (DS/EN 1849-1 / DS/EN 1849-2)			
❑ Flexibility at low temperature (DS/EN 1109)			
❑ Tolerances for length, width, thickness, mass per unit area (DS/EN 1848-1 / DS/EN 1848-2 / DS/EN 1849-1 / DS/EN 1849-2 / DS/EN 14964)			
❑ Air permeability (DS/EN 13859-2:2010, 4.3.4)			
❑ Tent effect after ageing (NT Build 488, see http://www.nordicinnovation.net/nordtestfiler/build488.pdf)			
❑ Water vapour diffusion resistance (only required for materials declared open to diffusion) (DS/EN 1931 / DS/EN ISO 12572 / DS/EN 14964)			
❑ Dimensional stability (DS/EN 1107-1 / DS/EN 1107-2)			
❑ Service life, documented from in situ testing			
❑ Fire classification (DS/EN 13501-1 / DS/EN ISO 11925-2)			

Other documentation		Documentation i annex no. / page
❑ MK-approval as ”trædesikkert underlag”	MK-godk.nr.:	

❑	Product information sheet	Version/date:
❑	Installation manual	Version/date:
❑	Product insurance	Version/date:

Limitations for use (producers own information)

❑	Roof pitch	Smallest permissible pitch:
❑	Roof covering	Unfit for:
❑	Exposure without roof covering	Maximum duration of exposure:
❑	Other	Indicate:

0	**Identification of material**	Answer Yes / No	Documentation in annex no. / page
0.1	Does the factory use a QA system? *Manufacturers certified to internationally recognised QA standards for development, production and control (such as ISO 9001) can use documentation from their own laboratories if the documentation is verified in writing by the auditor of the 3rd party certification body.*		
0.2	Is the product information (company name, product name, production date or production code) printed on the wrapping or on a paper placed in the wrapping? *In order to ensure traceability of the material before and during installation of the material the company name etc. must be printed on the wrapping or on a paper placed in the wrapping. This is documented by placing a product sample as an annex to the applica-*		
0.3	Is the product name printed on the material? *In order to ensure traceability after installation the product name has to be printed on the underlay material itself at regular intervals. This is verified by placing a product sample as annex to the application form.*		
0.4	Is the product name and production date or production code printed on the material? *In order to ensure traceability after installation the product name and production date or production code has to be printed on the underlay. This is verified by placing a product sample as annex to the application form.*		

1.1	**Design details – Eaves** The design details at the eaves must include at least one detail with roof overhang and one without roof overhang. The roofing underlay must be adequately attached to a flashing. Appropriate ventilation above and below the roofing underlay must be ensured.	Answer Yes / No	Valid for roof pitch >15° <25°	 >25° <35°	 >35°	Documentation is in annex no. / page no.
1.1.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.1.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.1.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.1.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.1.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.1.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.1.5.*					
1.1.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.1.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.2	**Design details – Ridge** The design details at the ridge must show at least one solution with the necessary venting. If the roofing underlay is diffusion-tight there either have to be vents in the roofing underlay at the ridge or a sufficient number of and the proper placement of ventilation ducts must be shown.	Answer Yes / No	Valid for roof pitch >15° <25°	 >25° <35°	 >35°	Documentation is in annex no. / page no.
1.2.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.2.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.2.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.2.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.2.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.2.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.2.5.*					
1.2.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.2.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.3	**Design details – Masonry gable** The design details must show a masonry gable with roof overhang og a masonry gable without overhang. The roofing underlay must be fastened adequately to the gable.	Answer Yes / No	Valid for roof pitch >15° <25°	 >25° <35°	 >35°	Documentation is in annex no. / page no.
1.3.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.3.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.3.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.3.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.3.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.3.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.3.5.*					
1.3.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.3.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.4	**Design details – Penetration of roof covering ventilators** There must be a design detail describing penetration of the roofing underlay in connection to roof covering vents. This goes for diffusion-open underlays over attics as well. The design details must reference at least one suitable type of ready-made roofing underlay ventilation penetration.	Answer Yes / No	Valid for roof pitch >15° <25°	>25° <35°	>35°	Documentation is in annex no. / page no.
1.4.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.4.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.4.3	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.4.4	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.4.5	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.4.4.*					
1.4.6	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.4.7	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.5	**Design details – small roof penetrations (small ventilation pipes etc.)** Design detail of smaller circular penetrations must be shown. A suitable component that ensures adequate mechanical resistance and water tightness must be prescribed. For generally unsupported underlays the penetration must be with a surrounding support e.g. plywood.	Answer Yes / No	Valid for roof pitch >15° <25°	>25° <35°	>35°	Documentation is in annex no. / page no.
1.5.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.5.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.5.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.5.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.5.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.5.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.6.5.*					
1.5.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.5.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.6	**Design details – Hips** There must be at least one description of the correct design details concerning roof hips.	Answer Yes / No	Valid for roof pitch >15° <25° >25° <35° >35°			Documentation is in annex no. / page no.
1.6.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.6.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.6.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.6.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.6.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.6.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.6.5.*					
1.6.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.6.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.7	**Design details – Top edge abutments of lean-to roofs/party walls** There must be a design details showing the interface the roofing underlay and a wall. A single design detail is sufficient it can be used for party walls acting as a fire-break. If this is not the case there furthermore must be a design detail showing the interface between the roofing underlay and a party wall acting as a fire-break.	Answer Yes / No	Valid for roof pitch >15° <25°	>25° <35°	>35°	Documentation is in annex no. / page no.
1.7.0	Is the product applicable f-r this construction? *If the answer is" No" continue with the next question.*					
1.7.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.7.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.7.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.7.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
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1.7.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.7.5.*					
1.7.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.7.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.8	**Design details – Roof windows (with gutters)** The detail must show an effective method for drainage of the roofing underlay above the roof window. Furthermore, necessary roof window accessories must be devised.. For roofing underlays supplied in roll form there must be a rigid underlay around the roof window.	Answer Yes / No	Valid for roof pitch >15° <25° >25° <35° >35°			Documentation is in annex no. / page no.
1.8.0	Is the product applicable for this construction? *If the answer is" No" continue with the next question.*					
1.8.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.8.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.8.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.8.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.8.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.8.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.8.5.*					
1.8.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.8.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.9	**Design details – Valley, submerged between the rafters** See drawing of details p. 23. The details must also show the bottom of the valley at the eaves and the top at ridge. There must be at least 3 details showing the submerged valley.	Answer Yes / No	Valid for roof pitch >15° <25°	 >25° <35°	 >35°	Documentation is in annex no. / page no.
1.9.0	Is the product applicable for this construction? *If the answer is" No" continue with the next question.*					
1.9.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.9.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.9.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.9.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.9.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.9.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.9.5.*					
1.9.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.9.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.10	**Design details – Large roof penetration (eg ventilation pibe)** Penetration of large ventilation ducts is detailed and must include drainage of the roofing underlay upstream the penetration. The detail must apply rigid underlay around the penetration.	Answer Yes / No	Valid for roof pitch >15° <25°	 >25° <35°	 >35°	Documentation is in annex no. / page no.
1.10.0	Is the product applicable for this construction? *If the answer is" No" continue with the next question.*					
1.10.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.10.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.10.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.10.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.10.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.10.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.10.5.*					
1.10.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.10.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.11	**Construction details – Chimney (incl. cricket and the joint between roofing underlay and the side of the chimney)** The detail for a chimney must show as well the joint between roofing underlay and chimney (including exterior corner) along the sides and at the bottom as the drainage of the roofing underlay above the chimney (cricket). The detail must be based on the use of a rigid underlay around the chimney.	Answer Yes / No	Valid for roof pitch >15° <25°	 >25° <35°	 >35°	Documentation is in annex no. / page no.
1.11.0	Is the product applicable for this construction? *If the answer is" No" continue with the next question.*					
1.11.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.11.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval.. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.11.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.11.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.11.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.11.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.11.5.*					
1.11.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.11.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

1.12	**Design details – Dormer (including valleys at the dormer)** The dormer details must include the joint between roofing underlay and sides and bottom of the dormer (including the bottom corner).Furthermore the details of the valley above the dormer must be shown. Special consideration must be given to end of the valley and its interface with the roofing underlay.	Answer Yes / No	Valid for roof pitch >15° <25°	>25° <35°	>35°	Documentation is in annex no. / page no.
1.12.0	Is the product applicable for this construction? *If the answer is" No" continue with the next question.*					
1.12.1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories? The design detail must be shown for the lowest roof pitch that it is valid.					
1.12.2	Is the execution demonstrated by a series of photos with at least 5 clear pictures showing the essential steps of step-by-step procedure? The demonstration must be made for the lowest pitch in the given interval. *A positive answer requires that the supplier is able to demonstrate the execution of the detail on either a mock-up or in-situ. The execution is photographed step by step and the series of photos is attached to the application as an annex.*					
1.12.3	Does the design detail contain accessories that are in physical contact with the roofing underlay? *Every product that is not an integral part of the roofing underlay is considered as an accessory.*					
1.12.4	Are accessories marketed along with the roofing underlay? *Correct and durable execution of the individual details depends on correct application of accessories. Application of suitable products is considered more likely when accessories are acquired together with the roofing underlay. Therefore, it is seen as an advantage when accessories are marketed together with the product. A photograph of the accessory and possibly a reference to DB- og GTIN-no. is advantageous.*					
1.12.5	Does the installation manual state chemical compatibility and chemical incompatibility between the roofing underlay and other types of materials? *Some materials attack or are attacked by other materials. Therefore, it is important to declare which other materials can or cannot be combined with the roofing underlay. The information can be given generally in the installation manual but it is a better solution to state for every construction what materials accessories can be made of.* *If case that accessories which is not direct contact with the roofing underlay are exposed to washed-out chemical components from the roofing underlay this also has to be declared.*					
1.12.6	Does the installation manual state which adhesives that can or cannot be applied with the roofing underlay? *See description above under question 1.12.5.*					
1.12.7	Is there documentation for the durability of the shown accessories or components? *The durability of the accessories and of the joints between roofing underlay and accessories are equally important as the durability of the roofing underlay itself. Therefore, documentation for the durability of the components is wanted.*					
1.12.8	Is there any documentation for the durability of the design detail including accessories as a whole? *The best documentation is of course a full-scale test of the design detail as a whole.*					

	2 Storage and installation Limitations in storage on site and limitations concerning installation must be addressed on the wrapping and in the installation manual.	An-swer Yes / No	Valid for roof pitch >15° <25°	>25° <35°	>35°	Documentation is in annex no. / page no.
2.1	Is the installation manual inlaid in the package/wrapping containg the roofing underlay or is the packaging clearly marked with a scannings tag linking to a web-site containing explicit the installation manual? *Easy access to the installation manual increases the probability that it is used.*					
2.2 .1	Is the material identical on both sides? *If there is a difference between inside outside this must be indicated.*					
2.2 .2	Is outside/inside printed on the product? *If there is a difference between the inside and the outside of the product, there has to be a printed indication of which one is the inside (or the outside). Printed lines indicating the overlap size is beneficial to the installation process..*					
2.3	Can the roofing underlay be installed perpendicular to the rafters? *If special clamp or fasteners are to be used this has to be described.*					
2.4 .1	Is the roofing underlay prone to emitting fluttering noise? *Certain roofing underlays in roll form are prone to fluttering, which might make noise and cause wear of the roofing underlay.*					
2.4 .2	Are there any limitations in the application in order to avoid fluttering noise? If yes, state the limitations, for instance type of roof covering.		If yes, state the limitaions:			
2.4 .3	Are remedies for fluttering by means of accessories described? *When there is a risk of fluttering, there must suitable accessories for the remedy.*		If yes, state the measures:			
2.4 .4	Is fluttering and corresponding remedies described in the installation manual? *If there is a risk of fluttering, this risk and proper remedies must be pre-*					
2.4 .5	Is there documentation for the strength and durability of the remedies for fluttering? *If remediation is necessary, the accessories for the remedy must possess a service life corresponding to that of the roofing underlay.*					
2.4 .6	Is there documentation for strength and durability of the roofing underlay regarding the stress concentration exerted on the roofing underlay by the remedies for fluttering? *If remedies concerning fluttering are prescribed the roofing underlay must be able to withstand the concentrated stresses exerted by the remedies.*					
2.5	Is the roofing underlay approved as step resistant according to MK-5.00/004? *Step resistance will reduce the risk of penetration during installation. If the roofing underlay is step resistant, this should be stated visibly from*					
2.6	Is the roofing underlay resistant to the load from a falling person according to TI-B 110 and subjected to yearly 3rd party surveillance according to TI-B 110? *Resistance of the roofing underlay to the load from a falling persona reduces the risk of injuries from fall when working at height. Resistance of the roofing underlay to the load from a falling person must be ensured for certain types of roof construction. If the roofing underlay is resistant to the load from a falling person, this should be stated visibly from the outside of the package or in the installation manual.*					

2.7	Are there any restrictions regarding storage of the roofing underlay? *When there are restrictions regarding the storage of the roofing underlay (standing, lying, protected against sun light and moisture or within a specific temperature range), the restrictions must be presented visibly from the outside of the package and in the installation manual.*		If yes, state the restrictions:	
2.8	Is it possible to install the roofing underlay in moist weather (rain or similar)? *Limitations regarding installation must presented visibly from the outside*			
2.9	Does the installation has to take place within a specific temperature range? If it has, state the temperature range. *Limitations in installation must be presented visibly from the outside of the package and in the installation manual.*		If yes, state the temperature range/ minimum temperature:	
2.10	Does the supplier at personal request offer technical support? *It is of great value to contractors, that technical support over the phone is available from the construction site. Technical support must personal and fully available during normal working hours.*			

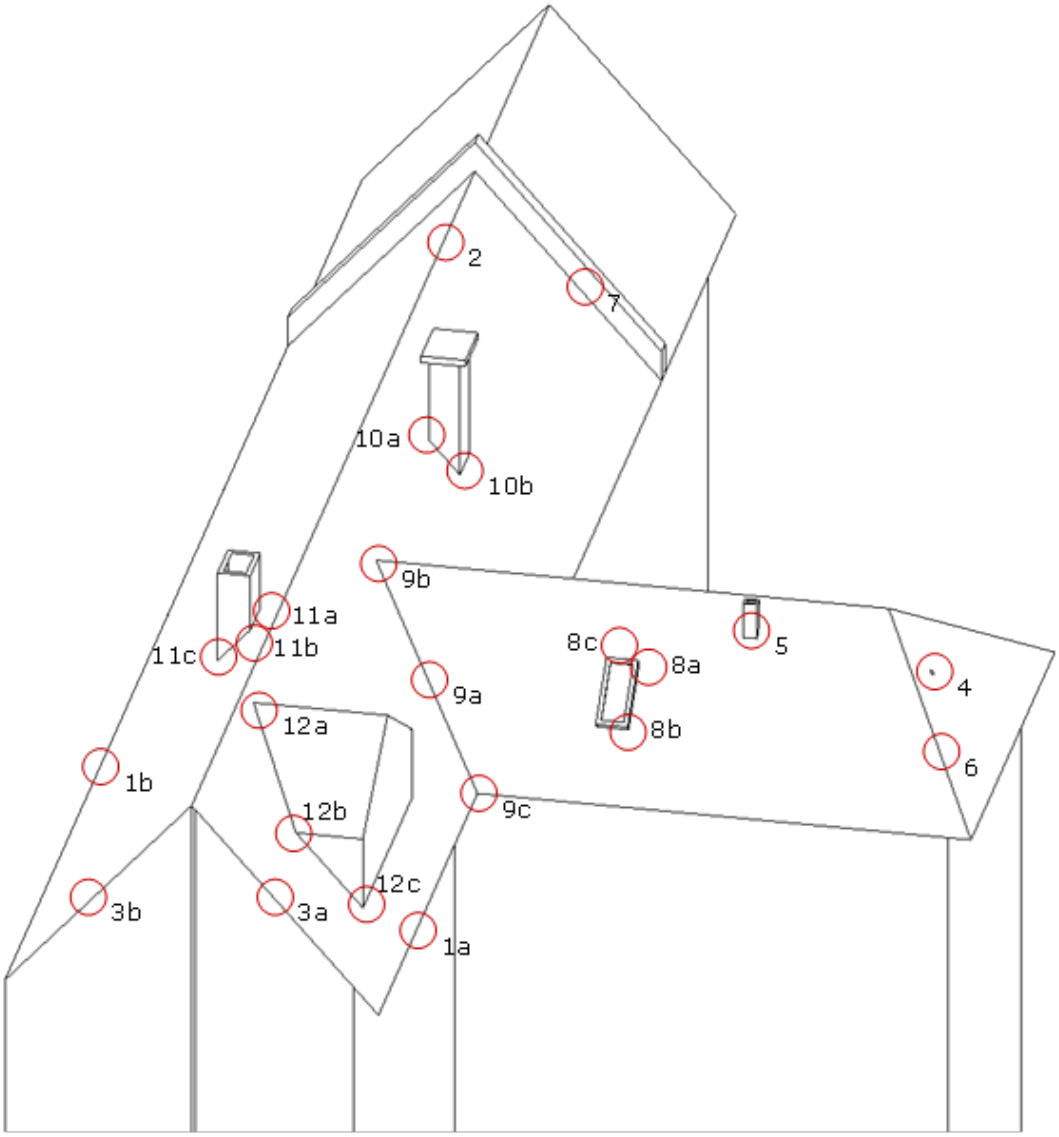
3.1	**Repair – Hole or small tear/crack**	Answer Yes / No	Must be valid for all roof pitchs	Documentation is in annex no. / page no.
3.1 A1	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories?			
3.1 B	Is repair possible from the inside/from below? *Roofs with a lateral thermal insulation layer (open attic) often give easy access for repair of the roof from the inside. In this case, it is not necessary to operate from the outside of the roof and remove the roof covering. Therefore, it is considered a benefit if the installation manual describes a method for repair from the inside.*			
3.1 C	Is repair possible from the outside/from above *Roofs insulated between the rafters (open attics) makes repair of the roofing underlay from the inside impossible. In addition, roofs with low roof pitch have limited access from the inside. Therefore, a method for repair from the outside must be shown.*			
3.1 D	Is it specified in the installation manual, which repair materials that can be applied for the repair of the roofing underlay? *Some materials are degraded by or degrade other materials; other materials do not adhere properly to a given substrate. Therefore, is it essential to declare, which materials are compatible with the roofing underlay. This information can be presented in a general section of the installation manual, but a better solution is to specify adequate repair materials for each type of repair.*			
3.1 E	Are the repair materials marketed along with the roofing underlay? *Correct and durable repair depend on the use of appropriate repair materials. Use of appropriate repair materials is more likely when they are marketed along with the roofing underlay. Therefore, it is considered beneficial that the repair materials are marketed along with roofing underlay.*			
3.1 F	Are the repair materials sold as complete repair kit? *Repair kits with the right primer, adhesives and/or tape and possibly other repair materials improves the probability of a correct and durable repair.*			
3.1 G	Is repair restricted to a specific temperature range? If there is a restriction then specify the temperature range. *There should not be significant limitations regarding the application of the repair material. Consequently, it should be possible to apply the repair material at low temperatures. If application at low temperatures is impossible suitable countermeasures such as heating should be presented.*			
3.1 H	Is repair possible on moist surfaces? *There should not be significant limitations regarding the application of the repair material. Consequently, it should be possible to apply the repair material on a moist roofing underlay. If application at a moist roofing underlay is impossible suitable countermeasures, for instance wiping with a dry cloth, should be presented.*			
3.1 .I1	Is there documentation of the durability of the repair materials? *The durability of a repair is equally important as the durability of the roofing underlay itself. Therefore, documentation of the durability of repair materials is requested.*			
3.1 .I2	Is there documentation of the durability of the repair as a whole? *Durability of a repair can be demonstrated by appropriate testing.*			

3.2	**Reparation – Large tear/crack** Large tears/crack might require exchange of a larger part of the roofing underlay. Therefore, a suitable repair method much be described for this type of repair.	An-swer Yes / No	Must be valid for all roof pitchs	Documentation is in annex no. / page no.
3.2 A	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories?			
3.2 B	Is repair possible from the inside/from below? *Roofs with a lateral thermal insulation layer (open attic) often give easy access for repair of the roof from the inside. In this case, it is not necessary to operate from the outside of the roof and remove the roof covering. Therefore, it is considered beneficial if the installation manual describes a method for repair from the inside.*			
3.2 C	Is repair possible from the outside/from above *Roofs insulated between the rafters (open attics) makes repair of the roofing underlay from the inside impossible. In addition, roofs with low roof pitch have limited access from the inside. Therefore, a method for repair from the outside must be shown*			
3.2 D	Is it specified in the installation manual, which repair materials that can be applied for the repair of the roofing underlay? *Some materials are degraded by or degrade other materials; other materials do not adhere properly to a given substrate. Therefore, is it essential to declare, which materials are compatible with the roofing underlay. This information can be presented in a general section of the installation manual, but a better solution is to specify adequate repair materials for each type of repair.*			
3.2 E	Are the repair materials marketed along with the roofing underlay? *Correct and durable repair depend on the use of appropriate repair materials. Use of appropriate repair materials is more likely when they are marketed along with the roofing underlay. Therefore, it is considered beneficial that the repair materials are marketed along with roofing underlay.*			
3.2 F	Are the repair materials sold as complete repair kit? *Repair kits with the right primer, adhesives and/or tape and possibly other repair materials improves the probability of a correct and durable repair.*			
3.2 G	Is repair restricted to a specific temperature range? If there is a restriction then specify the temperature range. *There should not be significant limitations regarding the application of the repair material. Consequently, it should be possible to apply the repair material at low temperatures. If application at low temperatures is impossible suitable countermeasures such as heating should be presented.*			
3.2 H	Is repair possible on moist surfaces? *There should not be significant limitations regarding the application of the repair material. Consequently, it should be possible to apply the repair material on a moist roofing underlay. If application at a moist roofing underlay is impossible suitable countermeasures, for instance wiping with a dry cloth, should be presented.*			
3.2 I1	Is there documentation of the durability of the repair materials? *The durability of a repair is equally important as the durability of the roofing underlay itself. Therefore, documentation of the durability of repair materials is requested.*			
3.2 I2	Is there documentation of the durability of the repair as a whole? *Durability of a repair can be demonstrated by appropriate testing.*			

3.3	**Repair – Failure close to distance batten** The types of failure depend on the type of the roofing underlay (flexible sheet underlay on rigid underlay of board or plywood, rigid sheet type of roofing underlay or flexible sheet). An appropriate repair method suited to the specific type of roof underlay must be described.	Answer Yes / No	Valid for roof pitch			Documentation is in annex no. / page no.
			>15° <25°	>25° <35°	>35°	
3.3 A	Is the design detail described with a short text and a drawing in a simple and readable way – 3D drawing and clear labelling of the applied materials and accessories?					
3.3 B	Is repair possible from the inside/from below? *Roofs with a lateral thermal insulation layer (open attic) often give easy access for repair of the roof from the inside. In this case, it is not necessary to operate from the outside of the roof and remove the roof covering. Therefore, it is considered a benefit if the installation manual describes a method for repair from the inside.*					
3.3 C	Is repair possible from the outside/from above *Roofs insulated between the rafters (open attics) makes repair of the roofing underlay from the inside impossible. In addition, roofs with low roof pitch have limited access from the inside. Therefore, a method for repair from the outside must be shown*					
3.3 D	Is it specified in the installation manual, which repair materials that can be applied for the repair of the roofing underlay? *Some materials are degraded by or degrade other materials; other materials do not adhere properly to a given substrate. Therefore, is it essential to declare, which materials are compatible with the roofing underlay. This information can be presented in a general section of the installation manual, but a better solution is to specify adequate repair materials for each type of repair.*					
3.3 E	Are the repair materials marketed along with the roofing underlay? *Correct and durable repair depend on the use of appropriate repair materials. Use of appropriate repair materials is more likely when they are marketed along with the roofing underlay. Therefore, it is considered beneficial that the repair materials are marketed along with roofing underlay.*					
3.3 F	Are the repair materials sold as complete repair kit? *Repair kits with the right primer, adhesives and/or tape and possibly other repair materials improves the probability of a correct and durable repair.*					
3.3 G	Is repair restricted to a specific temperature range? If there is a restriction then specify the temperature range. *There should not be significant limitations regarding the application of the repair material. Consequently, it should be possible to apply the repair material at low temperatures. If application at low temperatures is impossible suitable countermeasures such as heating should be presented.*					
3.3 H	Is repair possible on moist surfaces? *There should not be significant limitations regarding the application of the repair material. Consequently, it should be possible to apply the repair material on a moist roofing underlay. If application at a moist roofing underlay is impossible suitable countermeasures, for instance wiping with a dry cloth, should be presented.*					
3.3 I1	Is there documentation of the durability of the repair materials? *The durability of a repair is equally important as the durability of the roofing underlay itself. Therefore, documentation of the durability of repair materials is requested.*					
3.3 I2	Is there documentation of the durability of the repair as a whole? *Durability of a repair can be demonstrated by appropriate testing.*					

Details

The drawing shows the details that must be shown in the installation manual.



All roofs

1. Eaves
   - a: With overhang
   - b: Without overhang
2. Ridge (ventilated/ non-ventilated)
3. Masonry gable
   - a: With overhang
   - b: Without overhang
4. Penetration of roof covering ventilators
5. Small roof penetrations
6. Hips
7. Top edge abutments of lean-to roofs/party walls
8. Roof windows
   - a: Upper corner
   - b: Lower corner
   - c: Drainage above

Complicated details

9. Valley, submerged
   - a: Middle section
   - b: At the ridge
   - c: At the eaves
10. Large roof penetration
    - a: Drainage above
    - b: Joint, lower corner
11. Chimney
    - a: Cricket above
    - b: Joint – upper corner
    - c: Joint – lower corner
12. Dormer
    - a: Joint - upper
    - b: Gutter, lower end
    - c: Joint – lower corner

Evaluation of buildability

The forms on pages 24-27 are use by DUKO when evaluating the application. In order to promote a fast application process the applicant should use these forms for self-evaluation before submitting the application. It is NOT necessary to submit the self-evaluation forms on pages 24-27 to DUKO.

Identification of the material

The following basic information supporting identification and declaration of the material must be available

0	**Identification of the material**	Yes	No
0.1	Does the factory use a certified quality assurance system?		
0.2	Is product information printed on the wrapping or on paper placed in the wrapping?		
0.3	Is the product name printed on the roofing underlay?		
0.4	Is the product name and the production date/production code printed on the material?		

Assessment of identification of the material

Score	**Identification of the material**
”Yes” in 0.1, 0.2 and 0.3 or 0.4	Good
”Yes”-in 0.1 og 0.2	Acceptable
Other	Poor

Details

1	**Detail (drawings/photos and text)**	Lowest possible roof pitch?	**Installation manual**				**Accessories**					
			A Is the detail described in text and drawings or photos?		B Is the execution demonstrated on mock-up?		C Are the accessory components marketed along with the roofing underlay?		D Is information given on possible alternative components?		E Is there documentation for durability of the accessories.	
		Grader	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1.1	Eaves with and without overhang											
1.2	Ridge											
1.3	Masonry gable with and without overhang											
1.4	Penetration of roof covering ventilators											
1.5	Small roof penetration (soil vent or similar.)											
1.6	Hips											
1.7	Top edge abutments of lean-to roofs/party walls											
1.8	Roof windows/skylights (including drainage/gutters)											
	Complicated details:											
1.9	Valley, submerged between the rafters											
1.10	Large roof penetration (example: large ventilation duct exhaust pipe)											
1.11	Chimney (including cricket and the joint between roofing underlay and the side of the chimney)											
1.12	Dormers (including valley at the top of the dormer)											

Assessment of details

Valid for the following details	Relevant clauses	Assessment		
		Good	Acceptable	Poor
All roofs	1.1 – 1.8	16 x ”Yes” in columns A and B and at least 16 x ”Yes” in other columns	16 x ”Yes” in columns A and B	Other
Complicated details	1.9 – 1.12	8 x ”Yes” in columns A and B and at least 8 x ”Yes” in other columns	8 x ”Yes” in columns A and B	Other

Storage and installation

2	**Product storage and installation**	A		**Additional question**	B	
		Yes	No		Yes	No
2.1	Is an installation manual inserted into the packaging or has the package a scannings code linked to an unik website containing installation manual?					
2.2	Is the product similar on both sides? – and if no, is inside/outside shown on the material?					
2.3	Can the product be laid parallel to the rafter?					
2.4	Can the product be laid perpendicular to the rafter?					
2.5	Is the product presumably without risk of fluttering? - and if no: Is remediation of fluttering prescribed with accessories?					
2.6	Is the product approved by ETA-Denmark as step resistant with an MK-approval?			Is this printed legibly on the outside of the package?		
2.7	Is the product able to resist the load from a falling person?			Is this printed legibly on the outside of the package?		
2.8	Are the any limitations in the storage of the product (roll standing/ roll lying on the side, solar radiation, moisture, temperature)?			Is this printed legibly on the outside of the package?		
2.9	Can the product be installed in moist weather (will for instance tape or other prescribed sealants function)?			Is this printed legibly on the outside of the package?		
2.10	Can the product be installed in frost (below °C - will for instance tape or other prescribed sealants function)?			Is this printed legibly on the outside of the package?		
2.11	Does the supplier provide technical service at personal requests?					

Assessment of storage and installation

Score	**Assessment**
”Yes” in 2.1 og 2.2 and at least 6 x”Yes” in column A og 4 x”Yes” in column B	Good
”Yes” in 2.1 og 2.2 and at least 3 x”Yes” i column A og 3x ”Yes” in column B	Acceptable
Other	Poor

Repair

3	Repair	Installation manual – repair part								Repair materials									
		A Is the repair described in text and drawings?		B Is repair possible from below?		C Is repair possible from above?		D Is information given on chemical compatible repair materials?		E Is the repair material marketed along with the roofing underlay?		F Is the repair material marketed as a complete repair kit e?		G Is repair possible below temperatures of 5 °C?		H Is repair possible on moist surfaces?		I Is there documentation for the durability of repairs?	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
3.1	Hole or minor tear/crack																		
3.2	Large tear/crack																		
3.3	Failure close to distance batten																		

Assessment of repair

Score	Assessment
6 x"Yes" in columns A and D, 3 x"Yes" in columns B and C and at least 6 x"Yes" in other columns	Good
6 x"Yes" in columns A and D, 3 x"Yes" in column B and C	Acceptable
Other	Poor