

## Technical data sheet

# DELTA®-MAXX PLUS

Vapour permeable roofing underlay with innovative adhesive zones along both edges.



Characteristics	Methods	Values
<b>Description</b>		
<b>Application</b>	–	For uninsulated and fully insulated pitched roofs. Complies with the ZVDH product data sheet UDB/USB. Suitable for temporary roofing. Also suitable for smaller formed surfaces (e.g. dormer roofs, roof overhangs).
<b>Material</b>	–	Highly tear-resistant polyester nonwoven with a waterproof special coating. With adhesive strips along both edges.
<b>Special features</b>	–	Reduced material consumption / minimal waste thanks to the double adhesive strips (the underlay can simply be turned and reused directly). Saves up to 30 % time and material.
<b>Weight</b>	EN 1849-2	approx. 190 g/m²
<b>Thickness</b>	–	approx. 0.4 mm
<b>Straightness (≤ 30 mm/10 m)</b>	EN 1848-2	Passed
<b>Watertightness</b>		
<b>Resistance to water penetration before and after ageing (336 h UV)</b>	EN 1928	W1
<b>Watertightness after long-term exposure (448 d at 5±2 m/s; 70 °C)</b>	EAD 030218-01-0402	W1
<b>Watertightness of the perforation points of screws and nails</b>	EAD 030218-01-0402	Passed
<b>Watertightness of the seams</b>	EN 192/8	W1
<b>Driving rain test</b>	Test University of Berlin	Watertight
<b>Water vapour transmission</b>		
<b>S<sub>d</sub>-value</b>	EN ISO 12572	approx. 0.17 m
<b>Diffusionswiderstand μ</b>	–	approx. 425
<b>Water vapour transmission</b>	EN ISO 12572	approx. 1.1 · 10 <sup>-9</sup> kg/m² · s · Pa
<b>Mechanical properties</b>		
<b>Tensile strength MD/CD</b>	EN 12311-1	approx. 450/400 N/5 cm
<b>Tensile strength after ageing (336 h UV) MD/CD</b>	EN 12311-1	approx. 360/320 N/5 cm
<b>Elongation at break MD/CD</b>	EN 12311-1	approx. 32–58 % / 40–80 %
<b>Tear resistance MD/CD</b>	EN 12310-1	approx. 340/370 N
<b>Dimensional stability</b>	EN 1107-2	<1.0 %
<b>Flexibility at low temperature</b>	EN 1109	–25 °C
<b>Miscellaneous characteristics</b>		
<b>Fire resistance</b>	EN 13501-1	B-s1,d2
<b>Fire index (CH)</b>	VKF	4.2
<b>Air permeability</b>	EN 12114	< 0,1 m³/h · m²
<b>Service temperature range</b>	–	–40 °C to +80 °C
<b>Short-term maximum temperature load of the material (&lt;8 h/day)</b>	–	+120 °C
<b>Long-term durability</b>	EAD 030218-01-0402	Service life > 25 years
<b>UV-related outdoor exposure time</b>	–	12 weeks
<b>Temporary roofing function</b>	–	6 weeks
<b>Dimension</b>	–	50 m × 1.50 m / 50 m × 2.96 m

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Characteristics	Methods	Values
<b>Miscellaneous characteristics</b>		
<b>Density</b>	–	approx. 475 kg/m <sup>3</sup>
<b>Thermal conductivity</b>	–	approx. 0.17 W/m × K
<b>Specific heat capacity c</b>	–	approx. 1,000 J/kg × K
<b>Weight of one roll</b>	–	14 kg (dimension 50 m × 1.50 m) 28 kg (dimension 50 m × 2.96 m)
<b>Packaging unit</b>	–	18 rolls/pallet (dimension 50 m × 1.50 m) 15 rolls/pallet (dimension 50 m × 2.96 m)
<b>CE-conformity</b>	EAD 030218-01-0402, EN 13859-1+2	Yes
<b>Certificates</b>	–	UDB/USB according to ZVDH. Increased ageing requirement: passed, ZVDH product data sheet Table 1 European Technical Assessment ETA-20/0405 (service life > 25 years, watertightness of perforation points)
<b>External test reports</b>	–	Fall-through safety according to DGUV test
<b>Accessories</b>		
<p>• <b>DELTA-MULTI-BAND® FLEXX:</b> Universal, highly age-resistant adhesive tape with maximum adhesive strength for outdoor and indoor use. For sealing and repairing all DELTA® sheets (applied to the printed upper side) as well as to join them to any similar surfaces and surfaces made of plastic (rigid), metal, smooth wood, and wood-based materials. Particularly suitable for bonding of non-woven surfaces (e.g. DELTA-XX PLUS®, DELTA®-PVG PLUS). Material: special reinforced UV-stabilized black polyethylene (PE) film and highly aggressive solvent-free acrylic adhesive with an easily removed paper release liner. Meets the requirements of the norm DIN 4108-11. Dimension: 60 mm × 25 mm / 60 mm × 40 mm / 100 mm × 25 mm* (*with slit paper release liner).</p>		
<p>• <b>DELTA-MULTI-BAND®:</b> Single-sided high-performance adhesive tape to seal and repair all DELTA® sheets (applied to the printed upper side) as well as to join them to any similar surfaces and surfaces made of plastic (rigid), metal, smooth wood, and wood-based materials. Suitable for inside and outside application. Material: special reinforced UV-stabilized polyethylene (PE) film and highly aggressive solvent-free acrylic adhesive with an easily removed paper release liner. Meets the requirements of the norm DIN 4108-11. Dimension: 60 mm × 25 mm / 100 mm × 25 mm* / 150 mm × 25 mm* (*with slit paper release liner).</p>		
<p>• <b>DELTA®-FLEXX-BAND FG 80 / FG 150:</b> Sealing and connecting tape suitable for outside and inside details such as skylights, flue pipes, cables. Thickness approx. 2 mm. Material: solvent-free butyl rubber adhesive on special PE film with siliconized PE cover foil, slit in the middle. Dimension: 6 m × 80 mm / 10 m × 150 mm. Also available as DELTA®-FLEXX-BAND F 100 with geotextile surface: 10 m × 100 mm.</p>		
<p>• <b>DELTA®-TILAXX ULTRA:</b> Universally applicable, permanently elastic as well as solvent-free cartridge hybrid adhesive based on MS polymers (modified silanes) for bonding overlaps of all DELTA® membranes, as well as their connections to masonry, concrete, wood, derived timber products, aluminium, steel, rigid PVC and bitumen. Filling weight: 290 ml.</p>		
<p>• <b>DELTA®-THAN:</b> Permanently elastic cartridge adhesive made of special rubber for outside application, for bonding and joining DELTA® membranes. (suitable for bonding the underside of DELTA®-MAXX PLUS) Filling weight: 310 ml per cartridge / 600 ml per tubular bag.</p>		
<p>• <b>DELTA®-NAGELDICHTBAND:</b> VPE foam nail-sealing tape off the roll. For sealing nail penetrations. Single-faced. Apply to sheet surfaces or counterbattens. Dimension: 40 mm × 30 m (DELTA®-SB 40) / 50 mm × 30 m (DELTA®-SB 50) / 60 mm × 30 m (DELTA®-SB 60) / 70 mm × 30 m (DELTA®-SB 70) / 80 mm × 30 m (DELTA®-SB 80)</p>		