

## Technical data sheet

# DELTA®-XX UNIVERSAL

Durable and diffusion-open multi-layer protective membrane for use in pitched roofs and behind closed-joint ventilated facade claddings. Particularly suitable for applications in prefabricated elements.

Available in widths up to 3.40 m



| Characteristics                                                           | Methods                                    | Values/Description                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>                                                        |                                            |                                                                                                                                                                                                                                                                                                                       |
| <b>Application</b>                                                        | –                                          | For fully insulated pitched roofs with and without formwork. Corresponds to the ZVDH product data sheet UDB / USB. Suitable as temporary roofing and as pre-roofing under metal roofing, slate, fibre cement boards or shingles. Also applicable as a façade membrane behind ventilated claddings with closed joints. |
| <b>Material</b>                                                           | –                                          | Multi-layer, pitched roof membrane made of a tear-resistant, diffusion-open combination of PP spunbonded fleece and PU functional film.                                                                                                                                                                               |
| <b>Weight</b>                                                             | EN 1849-2                                  | approx. 150 g/m²                                                                                                                                                                                                                                                                                                      |
| <b>Thickness</b>                                                          | –                                          | approx. 0.7 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>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. 0.08 m                                                                                                                                                                                                                                                                                                        |
| <b>Diffusion resistance factor μ</b>                                      | –                                          | approx. 114                                                                                                                                                                                                                                                                                                           |
| <b>Water vapour transmission</b>                                          | EN ISO 12572                               | approx. 2.17 · 10 <sup>-9</sup> kg/m² · s · Pa                                                                                                                                                                                                                                                                        |
| <b>Mechanical properties</b>                                              |                                            |                                                                                                                                                                                                                                                                                                                       |
| <b>Tensile strength MD/CD</b>                                             | EN 12311-1                                 | approx. 340/270 N/5 cm                                                                                                                                                                                                                                                                                                |
| <b>Tensile strength after ageing (336 h UV) MD/CD</b>                     | EN 12311-1                                 | approx. 340/270 N/5 cm                                                                                                                                                                                                                                                                                                |
| <b>Elongation at break MD/CD</b>                                          | EN 12311-1                                 | approx. 80 % / 80 %                                                                                                                                                                                                                                                                                                   |
| <b>Tear resistance MD/CD</b>                                              | EN 12310-1                                 | approx. 180/200 N                                                                                                                                                                                                                                                                                                     |
| <b>Dimensional stability</b>                                              | EN 1107-2                                  | <1.0 %                                                                                                                                                                                                                                                                                                                |
| <b>Flexibility at low temperature</b>                                     | EN 1109                                    | -45 °C                                                                                                                                                                                                                                                                                                                |
| <b>Miscellaneous characteristics</b>                                      |                                            |                                                                                                                                                                                                                                                                                                                       |
| <b>Fire resistance</b>                                                    | EN 13501-1                                 | E                                                                                                                                                                                                                                                                                                                     |
| <b>Fire code number</b>                                                   | VKF                                        | 5.2                                                                                                                                                                                                                                                                                                                   |
| <b>Air permeability</b>                                                   | EN 12114                                   | <0.1 m³/h · m²                                                                                                                                                                                                                                                                                                        |
| <b>Service temperature range</b>                                          | –                                          | -40 °C bis +80 °C                                                                                                                                                                                                                                                                                                     |
| <b>Short-term maximum temperature load of the material (&lt; 8 h/day)</b> | –                                          | +100 °C                                                                                                                                                                                                                                                                                                               |
| <b>UV-related outdoor exposure time</b>                                   |                                            | 12 weeks                                                                                                                                                                                                                                                                                                              |
| <b>Temporary roofing function</b>                                         |                                            | 4 weeks                                                                                                                                                                                                                                                                                                               |
| <b>Dimension</b>                                                          | –                                          | 50 m × 2.96 m, 100 m × 2.96 m, 50 m × 3.40 m, 100 m × 3.40 m                                                                                                                                                                                                                                                          |
| <b>Weight of one roll</b>                                                 | –                                          | approx. 22.5 kg (50 m × 2.96 m), approx. 45 kg (100 m × 2.96 m), approx. 25.5 kg (50 m × 3.40 m), approx. 51.0 kg (100 m × 3.40 m)                                                                                                                                                                                    |
| <b>Packaging unit</b>                                                     | –                                          | 21 rolls/pallet (50 m × 2.96 m), 13 rolls/pallet (100 m × 2.96 m), 21 rolls/pallet (50 m × 3.40 m), 13 rolls/pallet (100 m × 3.40 m)                                                                                                                                                                                  |
| <b>CE-conformity</b>                                                      | EAD 030218-01-0402, EN 13859-2, EN 13859-1 | yes                                                                                                                                                                                                                                                                                                                   |
| <b>Certificates</b>                                                       | –                                          | UDB / USB in accordance to ZVDH rules.<br>Increased ageing requirement: passed, ZVDH-Product data sheet, table 1<br>European Technical Assessment ETA-22/0389 (service life ≥ 25 years)                                                                                                                               |
| <b>External test reports</b>                                              | –                                          | 2,000 h QUV                                                                                                                                                                                                                                                                                                           |

## Accessories

- **DELTA-MULTI-BAND® FLEXX:**

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 family, DELTA®-PVG PLUS).

- **DELTA-MULTI-BAND®:**

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.

- **DELTA®-FLEXX-BAND FG 80 / FG 150:**

Sealing and connecting tape suitable for outside and inside details such as skylights, flue pipes, cables. Thickness approx. 2 mm.

- **DELTA®-TILAXX ULTRA:**

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.

- **DELTA®-THAN:**

Permanently elastic cartridge adhesive made of special rubber for outside application, for bonding and joining DELTA® membranes.

- **DELTA®-SCHAUM-BAND:**

VPE foam nail-sealing tape off the roll. For sealing nail penetrations. Single-faced. Apply to sheet surfaces or counterbattens.

- **DELTA®-HF PRIMER:**

Solvent-free adhesion primer for porous substrates. Serves to significantly improve the adhesion properties of surfaces to be bonded, e.g. wood fibre boards, sanding masonry and concrete. Also suitable for preparing the surface of DELTA-XX PLUS® types before bonding DELTA®-FLEXX-BAND.

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