

## SBS MODIFIED, BITUMINOUS WATERPROOFING MEMBRANE

-20°C Series

### EP 4000 AL

**SBS (Styrene Butadiene Styrene) Modified, Bituminous Waterproofing Membrane**

**It's upper surface is coated with Aluminum, sub surface coated with PE.**

**It is reinforcement with Polyester.**

| Test Name                                   | Standard                 | Unit             | Tolerance   | Value   |
|---|--------------------------|------------------|-------------|---------|
| Visual Defects                              | TS EN 1850-1             | -                | -           | none    |
| Thickness                                   | TS EN 1849-1             | mm               | ±0,2        | 4       |
| Reinforcement                               | -                        | g/m <sup>2</sup> | -           | 180     |
| Length                                      | TS EN 1848-1             | m                | min (-0,03) | 10      |
| Width                                       | TS EN 1848-1             | cm               | min (-2)    | 100     |
| Straightness                                | TS EN 1848-1             |                  |             | pass    |
| Watertightness                              | TS EN 1928 Mt.A/Mt.B*    | 10kPa/60kPa*     |             | pass    |
| Dimensional Stability                       | TS EN 1107-1             | %                | max         | ≤0,6    |
| Flexibility at Low Temperature              | TS EN 1109 / ASTM D-5147 | °C               | ≤           | -20     |
| Flow Resistance at Elevated Temperature     | TS EN 1110 / ASTM D-5147 | °C               | ≥           | 100     |
| Tensile Strength (MD/CMD)                   | TS EN 12311-1            | N/50 mm          | min         | 800/600 |
| Elongation (MD/CD)                          | TS EN 12311-1            | %                | min         | 35/35   |
| Impact Resistance                           | TS EN 12691 Mtd.A        | mm               | min         | 1000    |
| Resistance to Static Loading                | TS EN 12730 Mtd.A/Mtd.B* | kg               | min         | 15      |
| Shear Resistance of Joints                  | TS EN 12317-1            | N/50 mm          | ±20%        | 570     |
| Peel Resistance of Joints                   | TS EN 12316-1            | N/50 mm          | ±30%        | 55      |
| Tearing Resistance (with nail)              | TS EN 12310-1            | N/50 mm          | ±20%        | 220     |
| Reaction to Fire                            | TS EN 11925-2            | class            |             | E       |
| External Fire Performance                   | ENV 1187-2               | class            |             | Broof   |
| Form stability under cyclical temp. changes | TS EN 1108               |                  |             | 0,38    |
| Water Vapor Properties                      | TS EN 1931               |                  | min         | 20000   |
| Watertightness After Stretching             | TS EN 13897              |                  |             | NPD     |
| Resistance to Root Penetration              | EN 13948                 |                  |             | NPD     |
| Artificial Ageing +Cold Flexibility         | TS EN 1296 / TS EN 1109  | °C               | 0+10        | 3       |
| Artificial Ageing +Flow Resistance          | TS EN 1296 / TS EN 1110  | °C               | 0+10        | 0       |
| Artificial Ageing +Watertightness           | TS EN 1296 / TS EN 1928  | 2 kPa/60kPa*     |             | NPD     |
| Adhesion on Granules                        | TS EN 12039              | %                | max         | NPD     |
| Resistance of Chemicals                     | TS EN 1847               |                  |             | NPD     |
| Dangerous Substances                        | -                        | one/none         |             | none    |