

**VEKAPLAN S / VEKAPLAN S-FR\***

| Properties                                    | Standard             | Value              |                |           |
|---|----------------------|--------------------|----------------|-----------|
| Thickness [mm]                                |                      | 8, 10, 13, 15, 17  | 19, 24         | 30        |
| Density [g/cm <sup>3</sup> ]                  | DIN EN ISO 1183      | 0,43–0,50          | 0,43–0,50      | 0,45–0,55 |
| E-modulus [MPa]                               | ISO 527 (50 mm/min)  | 1050               | 1050           | 1050      |
| Impact strength (Charpy) [kJ/m <sup>2</sup> ] | ISO 179/1eU          | 20                 | 20             | 20        |
| Tensile strength [MPa]                        | ISO 527 (50 mm/min)  | 11                 | 11             | 11        |
| Flexural strength [MPa]                       | ISO 178 (2 mm/min)   | 21                 | 21             | 21        |
| Shore hardness D                              | ISO 868              | 50–70              | 60–70          | 60–70     |
| Surface resistance ROE [ $\Omega$ ]           | DIN IEC 60167        | 2,00E+14           | -              | -         |
| Volume resistance RD [ $\Omega$ ]             | DIN IEC 60093        | 1,86E+14           | -              | -         |
| Dielectric constant $\epsilon_r$              | DIN 53483            | 1,6–1,8            | -              | -         |
| Coefficient of expansion [mm/mK]              | DIN 53752            | 0,06               | 0,06           | 0,06      |
| Compressive strength [N/mm <sup>2</sup> ]     | DIN 53421            | 3,5                | -              | -         |
| Vicat-softening point [°C]                    | ISO 306 (B50)        | 49                 | 49             | 49        |
| Heat distortion temperature [°C]              | ISO 75-2 (1,8 MPa)   | 57                 | 57             | 57        |
| Water absorption [%]                          | ISO 62 (after 216 h) | 4,9                | 4,9            | 4,9       |
| Water vapour diffusion equivalent- $s_d$ [m]  | DIN 52615            | 157 (at 10 mm)     | -              | -         |
| Fire rating                                   | NFP 92-512           | M1 (8, 10, 13 mm)* | M1 (19 mm)*    | -         |
|   |                      | Class E            | Class E        | Class E   |
|   | DIN EN 13501-1       | VEKAPLAN S-FR*     | VEKAPLAN S-FR* | -         |
|   |                      | C - s3 d2          | B - s3 d0      | -         |
|   | BS 476-7             | Class 1 (10 mm)    | -              | -         |
|   | NFP 92-512           | M1 (17 mm)         | -              | -         |

| Properties                     | Standard  | VEKAPLAN S |       |       |       |       |       |       |  |
|--------------------------------|-----------|------------|-------|-------|-------|-------|-------|-------|--|
| Thickness [mm]                 |           | 8          | 10    | 13    | 17    | 19    | 24    | 30    |  |
| Thermal conductivity [W/(mK)]  | DIN 52612 | 0,049      | 0,051 | 0,053 | 0,057 | 0,060 | 0,062 | 0,067 |  |
| U-value [W/(m <sup>2</sup> K)] | DIN 52612 | 3,0        | 2,8   | 2,4   | 2,2   | 2,0   | 1,8   | 1,6   |  |