



**SAPPHIRE P 4,5KG MINERAL GREY
PRODUCT SPECIFICATIONS**

TS EN 13707

Modification of Bitumen

APP (Atactic Polypropylene)
modified membranes

Reinforcement

Polyester

Upper surface coating

Grey Slate

Lower surface coating

PE

| Name of the Test | Method | Unit | Tolerance | Value |
|---|--------------------------|-------------------|------------|---------|
| Mass per unit Area | TS EN 1849-1 | kg/m ² | ±10% | 4,5 |
| 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 | % | ≤ | 0,6 |
| Flexibility at low temperature | TS EN 1109 / ASTM D-5147 | °C | ≤ | 0 |
| Flow resistance at elevated temperature | TS EN 1110 / ASTM D-5147 | °C | ≥ | 110 |
| Tensile strength (MD/CMD) | TS EN 12311-1 | N/50mm | ±25% | 480/320 |
| Elongation (MD/CD) | TS EN 12311-1 | % | ±25% | 25/25 |
| Impact resistance | TS EN 12691 Mtd.A | mm | min | 900 |
| Resistance to static loading | TS EN 12730 Mtd.A | Kg | min | 10 |
| Sheer resistance of joints | TS EN 12317-1 | N/50mm | ±20% | 300 |
| Peel resistance of joints | TS EN 12316-1 | N/50mm | | NPD |
| Tearing resistance (with nail) | TS EN 12310-1 | N | | NPD |
| 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 | % | | NPD |
| Water vapour properties | TS EN 1931 | | min | 20 000 |
| 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 | ±5 | 7 |
| Artificial ageing +Flow resistance | TS EN 1296/TS EN 1110 | °C | ±10 | 100 |
| Watertightness -Type A | TS EN 1296/TS EN 1928 | 2kPa / 60kPa* | | pass |
| Adhesion of granules | TS EN 12039 | % | max | 30 |
| Dangerous substances | ... | none/none | | none |

