

# Arnitel® EM630-H

## TPC-ET

Extrusion Grade, Heat Stabilized

Print Date: 2018-05-01

| Properties                                   | Typical Data | Unit                   | Test Method     |
|--|--------------|------------------------|-----------------|
| <b>Rheological properties</b>                |              |                        |                 |
|  | Value        |                        |                 |
| Melt volume-flow rate                        | 3.7          | cm <sup>3</sup> /10min | ISO 1133        |
| Temperature                                  | 230          | °C                     | ISO 1133        |
| Load   | 2.16         | kg                     | ISO 1133        |
| <b>Mechanical properties</b>                 |              |                        |                 |
|  | Value        |                        |                 |
| Shore D Hardness (3s)                        | 59           | -                      | ISO 868         |
| Tensile modulus                              | 310          | MPa                    | ISO 527-1/-2    |
| Stress at break                              | 35           | MPa                    | ISO 527-1/-2    |
| Stress at 5% strain                          | 11           | MPa                    | ISO 527-1/-2    |
| Stress at 10% strain                         | 16           | MPa                    | ISO 527-1/-2    |
| Stress at 50% strain                         | 19           | MPa                    | ISO 527-1/-2    |
| Stress at 100% strain                        | 16           | MPa                    | ISO 527-1/-2    |
| Charpy notched impact strength (+23°C)       | N            | kJ/m <sup>2</sup>      | ISO 179/1eA     |
| Charpy notched impact strength (-30°C)       | 12           | kJ/m <sup>2</sup>      | ISO 179/1eA     |
| <b>Thermal properties</b>                    |              |                        |                 |
|  | Value        |                        |                 |
| Melting temperature (10°C/min)               | 212          | °C                     | ISO 11357-1/-3  |
| Vicat softening temperature (50°C/h 50N)     | 125          | °C                     | ISO 306         |
| Vicat softening temperature (50°C/h 10N)     | 200          | °C                     | ISO 306         |
| Coeff. of linear therm. expansion (parallel) | 1.5          | E-4/°C                 | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | 1.5          | E-4/°C                 | ISO 11359-1/-2  |
| Burning Behav. at 1.5 mm nom. thickn.        | HB           | class                  | IEC 60695-11-10 |
| Thickness tested                             | 1.6          | mm                     | IEC 60695-11-10 |

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## Property Data

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| Properties                    | Typical Data | Unit              | Test Method    |
|-------------------------------|--------------|-------------------|----------------|
| <b>Electrical properties</b>  |              |                   |                |
|                               | Value        |                   |                |
| Relative permittivity (1 MHz) | 4.1          | -                 | IEC 60250      |
| Dissipation factor (1 MHz)    | 170          | E-4               | IEC 60250      |
| Volume resistivity            | 1.2E11       | Ohm*m             | IEC 60093      |
| Electric strength             | 22           | kV/mm             | IEC 60243-1    |
| Comparative tracking index    | 600          | V                 | IEC 60112      |
| <b>Other properties</b>       |              |                   |                |
|                               | Value        |                   |                |
| Density                       | 1240         | kg/m <sup>3</sup> | ISO 1183       |
| Water absorption              | 0.63         | %                 | Sim. to ISO 62 |
| Humidity absorption           | 0.18         | %                 | Sim. to ISO 62 |

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