

## STAMAX™ 20YH510

FR PP LGF REINFORCED

### DESCRIPTION

STAMAX™ 20YH510 is a high flow, halogen free flame retardant, copolymer reinforced with 20% long glass fiber, developed for Injection molded applications. This material has been designed to combine a good performance profile with good processing.

STAMAX™ 20YH510 should be dried at 100C for 2 hours before the injection molding.  
Melt temperature of 240 °C should not be exceeded during processing.

IMDS ID:1181781542

### TYPICAL PROPERTY VALUES

Revision 20241204

| PROPERTIES                                            | TYPICAL VALUES | UNITS | TEST METHODS |
|-------------------------------------------------------|----------------|-------|--------------|
| <strong>POLYMER PROPERTIES</strong>                   |                |       |              |
| Density                                               | 1225           | kg/m³ | ISO 1183     |
| Glass fibre content                                   | 20             | %     | ISO 3451     |
| <strong>MECHANICAL PROPERTIES <sup>(1)</sup></strong> |                |       |              |
| <strong>Tensile modulus</strong>                      |                |       |              |
| at 23 °C                                              | 6000           | MPa   | ISO 527/1A   |
| at 80 °C                                              | 2900           | MPa   | ISO 527/1A   |
| <strong>Tensile strength</strong>                     |                |       |              |
| at 23 °C                                              | 70             | MPa   | ISO 527/1A   |
| at 80 °C                                              | 37             | MPa   | ISO 527/1A   |
| <strong>Tensile elongation at break</strong>          |                |       |              |
| at 23 °C                                              | 2.1            | %     | ISO 527/1A   |
| <strong>Flexural Modulus</strong>                     |                |       |              |
| at 23 °C                                              | 6200           | MPa   | ISO 178      |
| at 80 °C                                              | 4000           | MPa   | ISO 178      |
| <strong>Flexural strength</strong>                    |                |       |              |
| at 23 °C                                              | 120            | MPa   | ISO 178      |
| at 80 °C                                              | 60             | MPa   | ISO 178      |
| <strong>Charpy Impact Strength Notched</strong>       |                |       |              |
| at 23 °C                                              | 14             | kJ/m² | ISO 179/1eA  |
| at -30 °C                                             | 14             | kJ/m² | ISO 179/1eA  |
| <strong>Charpy impact unnotched</strong>              |                |       |              |
| at 23 °C                                              | 36             | kJ/m² | ISO 179/1eU  |
| at -30 °C                                             | 35             | kJ/m² | ISO 179/1eU  |
| <strong>THERMAL PROPERTIES</strong>                   |                |       |              |
| <strong>Heat deflection temperature</strong>          |                |       |              |
| at 1.80 MPa (HDT/A)                                   | 152            | °C    | ISO 75/A     |
| <strong>Coeff. of linear thermal expansion</strong>   |                |       |              |
| -30 °C to 100 °C                                      | ≈54            | µm/mK | ISO 11359-2  |
| <strong>FLAMMABILITY PROPERTIES</strong>              |                |       |              |
| Comparative Tracking Index                            | 600            | V     | IEC 60112    |
| UL94                                                  |                |       |              |

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CHEMISTRY THAT MATTERS™



| PROPERTIES              | TYPICAL VALUES | UNITS | TEST METHODS   |
|-------------------------|----------------|-------|----------------|
| Lowest thickness for V0 | 0.8            | mm    | UL 94          |
| <b>GWFI</b>             |                |       |                |
| at 0.8mm                | =960           | °C    | IEC 60695-2-12 |
| at 1.6mm                | 960            | °C    | IEC 60695-2-12 |
| <b>GWIT</b>             |                |       |                |
| at 0.8mm                | 850            | °C    | IEC 60695-2-13 |

(1) All measurements on injection molded samples.

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