

# SABIC® STAMAX 30YK470 Provisional

Polypropylene

Saudi Basic Industries Corporation (SABIC)

## Message:

SABIC® STAMAX 30YK470 is a 30% long glass fiber reinforced grade with improved impact and flow properties. The grade is specially developed for extrusion compression moulding. The glass fibres are chemically coupled to the PP matrix, resulting in high stiffness and strength.

| General Information                            |                                        |                   |              |
|------------------------------------------------|----------------------------------------|-------------------|--------------|
| Filler / Reinforcement                         | Long glass fiber, 30% filler by weight |                   |              |
| Features                                       | Rigid, good                            |                   |              |
|                                                | Chemical coupling                      |                   |              |
|                                                | Impact resistance, good                |                   |              |
|                                                | Good liquidity                         |                   |              |
|                                                | Good strength                          |                   |              |
| Uses                                           | Application in Automobile Field        |                   |              |
| Processing Method                              | Compression molding                    |                   |              |
| Physical                                       | Nominal Value                          | Unit              | Test Method  |
| Density                                        | 1.12                                   | g/cm <sup>3</sup> | ISO 1183     |
| Mechanical                                     | Nominal Value                          | Unit              | Test Method  |
| Tensile Modulus                                |                                        |                   | ISO 527-2/1B |
| 23°C, injection molding                        | 6200                                   | MPa               | ISO 527-2/1B |
| 80°C, injection molding                        | 4400                                   | MPa               | ISO 527-2/1B |
| 120°C, injection molding                       | 3600                                   | MPa               | ISO 527-2/1B |
| Tensile Stress                                 |                                        |                   | ISO 527-2/1B |
| Yield, 23°C, injection molding                 | 98.0                                   | MPa               | ISO 527-2/1B |
| Yield, 80°C, injection molding                 | 60.0                                   | MPa               | ISO 527-2/1B |
| Yield, 120°C, injection molding                | 43.0                                   | MPa               | ISO 527-2/1B |
| Tensile Strain (Break, 23°C, Injection Molded) | 2.3                                    | %                 | ISO 527-2/1B |
| Flexural Modulus                               |                                        |                   | ISO 178      |
| 23°C, injection molding                        | 5500                                   | MPa               | ISO 178      |
| 80°C, injection molding                        | 3600                                   | MPa               | ISO 178      |
| Flexural Stress                                |                                        |                   | ISO 178      |
| 23°C, injection molding                        | 138                                    | MPa               | ISO 178      |
| 80°C, injection molding                        | 70.0                                   | MPa               | ISO 178      |
| Impact                                         | Nominal Value                          | Unit              | Test Method  |
| Charpy Notched Impact Strength                 |                                        |                   | ISO 179/1eA  |
| -30°C, injection molding                       | 24                                     | kJ/m <sup>2</sup> | ISO 179/1eA  |
| 23°C, injection molding                        | 21                                     | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Charpy Unnotched Impact Strength               |                                        |                   | ISO 179/1eU  |

| -30°C, injection molding                          | 70            | kJ/m <sup>2</sup> | ISO 179/1eU |
|---------------------------------------------------|---------------|-------------------|-------------|
| 23°C, injection molding                           | 57            | kJ/m <sup>2</sup> | ISO 179/1eU |
| Falling Dart Impact - Total Energy (23°C)         | 58.0          | J/cm              | ISO 6603-2  |
| Thermal                                           | Nominal Value | Unit              | Test Method |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 157           | °C                | ISO 75-2/A  |
| CLTE - Flow                                       |               |                   | ASTM D696   |
| -30 to 30°C                                       | 5.4E-5        | cm/cm/°C          | ASTM D696   |
| 23 to 80°C                                        | 3.7E-5        | cm/cm/°C          | ASTM D696   |

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