VESTORAN® 1900 GF20 HE30018

PPE-GF20 Evonik Operations GmbH

Product Texts

Modified polyphenylene ether (PPE), heat resistant, glass fiber-reinforced, suitable for K K process

VESTORAN® 1900GF20 HE30018 is the registered trademark of Evonik Operations GmbH for molding compounds containing poly-2,6-dimethyl-1,4-phenylene ether as polymeric constituent (polyphenylene ether, PPE, also referred to as PPO).

As a material of amorphous structure VESTORAN® 1900GF20 HE30018 shows very small mold shrinkage. Therefore molded parts have a very low tendency to warp.

Moldings of VESTORAN® 1900GF20 HE30018 are dimensionally stable and hydrolysis resistant even in hot water, but are more sensitive to organic solvents than semi-crystalline plastics.

VESTORAN® 1900GF20 HE30018 is resistant to aqueous alkalines and acides, certain alcohols, and glycol solutions.

Glass fiber reinforcement of this molding material combines outstanding heat deflection temperature under load with high strength and rigidity.

VESTORAN®1900GF20 HE30018 is particularly suitable for the adhesion promoter-free manufacturing of plastic/rubber composites patented K&K process ("direct-bonding to rubber").

VESTORAN® 1900GF20 HE30018 is supplied as cylindrical granules in polyethylene packaging.

The use of colorants may affect property values.

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**45**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**21.6**	kg	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**5700**	MPa	ISO 527
[C] Stress at break	**103**	MPa	ISO 527
[C] Strain at break	**2**	%	ISO 527
[C] Charpy impact strength, +23°C	**45**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C**	-	-
[C] Charpy notched impact strength, +23°C	**9**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C**	-	-

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Temp. of deflection under load, 1.80 MPa	**190**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**195**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**195**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**40**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**50**	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Density	**1200**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**320**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Special Characteristics
Heat stabilized or stable to heat

Features
Amorphous, Good Adhesion, Low Warpage

Chemical Resistance
Acid Resistance, Alkali Resistance, Hydrolytically Stable

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa