VESTODUR®

Product Information

VESTODUR® X4195

EASY FLOWING POLYBUTYLENE TEREPHTHALATE COMPOUND WITH INCREASED FLEXIBILITY AND IMPACT STRENGTH

VESTODUR® X4195 is an easy flowing, semi- crystalline polyester compound based on modified polybutylene terephthalate (PBT).

Parts made of this compound have an increased flexibility and impact strength.

VESTODUR® X4195 is supplied as cylindrical pellets in polyethylene packaging.

Pigmentation may affect values.

For further information about processing of VESTODUR® X4195, please follow the general recommendations in our brochure „VESTODUR® Handling and Processing."

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

Key Features

Processing
Injection molding, Extrusion

Additives
Unfilled

Delivery form
Pellets, Granules

Mechanical properties ISO	dry	Unit	Test Standard
Tensile modulus	**69600**	psi	ISO 527
Yield stress	**3920**	psi	ISO 527
Yield strain	**20**	%	ISO 527
Nominal strain at break, tB	**>50**	%	ISO 527

Charpy impact strength, +23°C	**N**	ftlb/in^2	ISO 179/1eU
Charpy impact strength, -30°C	**119**	ftlb/in^2	ISO 179/1eU
Type of failure	**P**	-	-
Charpy notched impact strength, +23°C	**11.9**	ftlb/in^2	ISO 179/1eA
Type of failure	**C**	-	-
Charpy notched impact strength, -30°C	**1.9**	ftlb/in^2	ISO 179/1eA
Type of failure	**C**	-	-

Thermal properties	dry	Unit	Test Standard
Temp. of deflection under load A, 1.80 MPa	**122**	°F	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	**194**	°F	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	**374**	°F	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	**248**	°F	ISO 306
Coeff. of linear therm. expansion, 23°C to 55 °C, parallel	**7.22E-5**	in/in/°F	ISO 11359-1/-2
Coeff. of linear therm. expansion, 23°C to 55 °C, normal	**7.22E-5**	in/in/°F	ISO 11359-1/-2

Physical properties	dry	Unit	Test Standard
Density	**1.26**	g/cm^3	ISO 1183
Water absorption	**0.4**	%	Sim. to ISO 62
Shore D hardness	**70**[b]	-	ISO 7619-1
Density	**1.26**	g/cm^3	ASTM D 792

b: 3 seconds

Burning Behav.	dry	Unit	Test Standard
Burning behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**0.0630**	in	-
Burning behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**0.0315**	in	-
Oxygen index	**25**	%	ISO 4589-1/-2

Limiting Oxygen Index	**25**	%	ASTM D 2863

Electrical properties	dry	Unit	Test Standard
Volume resistivity, V	**>1E13**	Ohm*m	IEC 62631-3-1
Relative permittivity, 100Hz	**4**	-	IEC 62631-2-1
Dissipation factor, 100Hz	**350**	E-4	IEC 62631-2-1
CTI, test solution A, 50 drops value	**600**	-	IEC 60112
Assessment of the insulation group	**I**	-	DIN EN 60664-1

Rheological properties	dry	Unit	Test Standard
Melt volume-flow rate, MVR	**70**	cm^3/10min	ISO 1133
Temperature	**250**	°C	-
Load	**2.16**	kg	-
Molding shrinkage, parallel	**2.0**	%	ISO 294-4, 2577
Molding shrinkage, normal	**2.0**	%	ISO 294-4, 2577

Characteristics

Processing
Film extrusion

Special Characteristics
High impact strength, Semi-crystalline

Chemical Media Resistance

Acids

- ✔ Acetic Acid (5% by mass) (23°C)
- ✔ Citric Acid solution (10% by mass) (23°C)

Bases

- ✔ Sodium Hydroxide solution (1% by mass) (23°C)

Alcohols

- ✔ Isopropyl alcohol (23°C)
- ✔ Methanol (23°C)

- ✔ Ethanol (23°C)

Mineral oils

- ✔ SAE 10W40 multigrade motor oil (23°C)

Salt solutions

- ✔ Sodium Chloride solution (10% by mass) (23°C)
- ✔ Sodium Carbonate solution (20% by mass) (23°C)
- ✔ Sodium Carbonate solution (2% by mass) (23°C)

Other

- ✔ Water (23°C)