

# Novodur 595CP

Acrylonitrile Butadiene Styrene (ABS)

## TECHNICAL DATASHEET

### DESCRIPTION

Novodur® 595CP is an extrusion grade optimized for refrigeration applications. It has high impact properties and is resistant to cyclo pentane.

### FEATURES

- Refrigeration extrusion grade
- Resistant to cyclo pentane
- High impact

### APPLICATIONS

- Refrigerator extruded parts
- Sheet application

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	3
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	25
Izod Notched Impact Strength, -20 °C	ISO 180/A	kJ/m²	15
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	11
Tensile Stress at Break, 23 °C	ISO 527	MPa	38
Tensile Stress at Yield, 23 °C	ISO 527	MPa	46
Tensile Modulus	ISO 527	MPa	2550
Flexural Strength, 23 °C	ISO 178	MPa	70
Flexural Modulus, 23 °C	ISO 178	MPa	2400
Hardness, Rockwell	ISO 2039-2	R scale	112
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/2 (120 °C/h, 50N)	ASTM D 1525	°C	102
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	96
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	100
<b>Optical Properties</b>			
Specular Gloss, 60 °	-		90
<b>Other Properties</b>			

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Density	ISO 1183	kg/m <sup>3</sup>	1050

Typical values for uncolored products

### SUPPLY FORM

Novodur is delivered in the form of cylindrical or cubical pellets. The bulk density of the pellets is from 0.55 to 0.65 g/cm<sup>3</sup>. Values may differ for special grades. Standard Packaging unit: 25 kg paper bag. In addition, delivery in larger units of up to 1000 kg (IBC = Intermediate Bulk Container) or silo trucks can be arranged. In dry areas with normal temperature control, Novodur pellets can be stored for relatively long periods of time without any change in mechanical properties. With unstable colors, however, storage over a number of years can give rise to some change in color. Under poor storage conditions, Novodur absorbs moisture, but this can be removed by drying.

### PRODUCT SAFETY

No adverse effects on the health of processing personnel have been observed where the products are correctly processed and the production areas are suitably ventilated. For styrene, alpha-methylstyrene, acrylonitrile, and butyl acrylate the maximum allowable workplace concentrations must be observed according to the pertaining national regulations. In Germany, the following limit values are valid TRGS 900 (Aug. 2004): styrene, MAK-value: 20 ml/m<sup>3</sup>; alpha-methylstyrene, MAK-value: 100 ml/m<sup>3</sup>; acrylonitrile, TRK-value: 3 ml/m<sup>3</sup>, and butyl acrylate, MAK-value: 2 ml/m<sup>3</sup> (1.7.2004). According to EU directive 67/548/EEC, Annex I (2001), acrylonitrile is classified as carcinogenic, category 2 ('substances which should be regarded as if they are carcinogenic to man'). Experience has shown that when Novodur® is processed correctly with appropriate ventilation, the levels are far below the limits mentioned above. Inhalation of the vapors of degradation products which can arise on severe overheating of the materials or during purging out should be avoided. Further information can be found in the Novodur safety data sheets.

### DISCLAIMER

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