

# Preperm™ ABS 1200/ TP21457

## Acrylonitrile Butadiene Styrene

### Key Characteristics

#### Product Description

PREPERM ABS300/TP20279 is a special compound based on Premix proprietary ABS technology. It offers a stable dielectric constant over wide frequency and temperature ranges with low losses. ABS300/TP20279 is optimized for extrusion but it can also be injection molded.

#### General

Material Status	• Commercial: Active
Regional Availability	• Asia Pacific • Europe • North America
Appearance	• White
Forms	• Pellets
Processing Method	• Injection Molding

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	2.37 g/cm <sup>3</sup>	2.37 g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/5.0 kg)	0.50 g/10 min	0.50 g/10 min	ISO 1133
Molding Shrinkage - Flow	0.80 %	0.80 %	ISO 294-4
Water Absorption (24 hr, 73°F (23°C))	0.30 %	0.30 %	ISO 62
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress (Break, 73°F (23°C))	2610 psi	18.0 MPa	ISO 527-2
Tensile Strain (Break)	3.0 %	3.0 %	ISO 527-2
Flexural Modulus	203000 psi	1400 MPa	ISO 178
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact Strength (73°F (23°C))	1.4 ft·lb/in <sup>2</sup>	3.0 kJ/m <sup>2</sup>	ISO 180
Unnotched Izod Impact Strength (73°F (23°C))	5.2 ft·lb/in <sup>2</sup>	11 kJ/m <sup>2</sup>	ISO 180
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	189 °F	87.0 °C	ISO 75-2/B
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	156 °F	69.0 °C	ISO 75-2/A
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Constant <sup>2</sup> (2.40 GHz)	12.0	12.0	Instrument
Dissipation Factor <sup>3</sup> (2.40 GHz)	2.9E-3	2.9E-3	Instrument

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	410 to 464 °F	210 to 240 °C
Mold Temperature	140 to 194 °F	60 to 90 °C

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**Injection Notes**

Injection Pressure: Moderate  
Injection speed: Moderate

These temperatures can be used for guidance purposes. Processing temperature is also dependent on the equipment used. The instructions of the equipment manufacturer should be followed.

Pre-drying in a dehumidifying drier is recommended e.g. 2 - 4 hours at 80 - 90°C. If a dehumidified drier is not available, we recommend increasing the drying temperature to 90 - 100 ° C and prolonging the drying time to 3 to 6 hours. If moisture level is too high, it can be seen in surface quality, but it does not cause polymer degradation

**Extrusion Notes**

Material Temperature: 200-240°C  
Die Temperature: 200-250°C  
Mold temperature/Tool/Roll Temperature: 50°C-90°C

**Notes**

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> RF Analyzer- SPDR  
Tolerance:±0.5

<sup>3</sup> RF Analyzer-SPDR  
Dissipation Factor: This is also known as Loss tangent

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