

Noryl* Resin TN300

Americas: COMMERCIAL

PPE+PS. Transparent. High heat. Color Limited. Injection molding. Laser-Transmission welding applications.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	77	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	57	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	8.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	2730	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	124	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2820	MPa	ASTM D 790
Hardness, Rockwell R	123	-	ASTM D 785
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	37	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	5	J	ASTM D 3763
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	161	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	145	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.12E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.94E-05	1/°C	ASTM E 831
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.07	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.7 - 1	%	SABIC Method
Melt Flow Rate, 300°C/5.0 kgf	31	g/10 min	ASTM D 1238
OPTICAL	Value	Unit	Standard
Light Transmission	83.1	%	ASTM D 1003
Haze	7.3	%	ASTM D 1003
Refractive Index	1.581	-	ASTM D 542

Source GMD, last updated:03/20/2002

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	2 - 8	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	295 - 315	°C
Nozzle Temperature	295 - 315	°C
Front - Zone 3 Temperature	280 - 315	°C
Middle - Zone 2 Temperature	270 - 310	°C
Rear - Zone 1 Temperature	260 - 305	°C

Mold Temperature	75 - 105	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	30 - 70	%

Source GMD, last updated:03/20/2002

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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