Shinko-Lac® ABS TR-5

Acrylonitrile Butadiene Styrene

Mitsubishi Rayon America Inc.

Message:

Shinko-Lac ABS TR-5 is a high heat resistant grade of ABS that also features good processability and excellent mechanical properties. Typical applications of TR-5 include fluorescent lamp covers, hair dryer components and automotive lamp housings.

General Information	
Features	Good dimensional stability Rigidity, high Highlight High strength Impact resistance, good Weldable Workability, good Sprayable Machinable Good chemical resistance Heat resistance, high Good toughness Good appearance Non-toxic High hardness
Uses	Electrical/Electronic Applications Application in Automobile Field Illumination diffuser
UL File Number	E54695
Appearance	Available colors Natural color
Forms	Particle
Processing Method	Extrusion Calendering Vacuum forming Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.06	g/cm³	ASTM D792

Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	0.15	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.55	%	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	108		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	2350	MPa	ASTM D638
Tensile Strength (Yield, 23°C)	45.1	MPa	ASTM D638
Flexural Modulus (23°C, 6.35 mm)	2450	MPa	ASTM D790
Flexural Strength (Yield, 23°C, 6.35 mm)	71.6	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°C, 6.35 mm	29	J/m	ASTM D256
0°C, 6.35 mm	69	J/m	ASTM D256
23°C, 6.35 mm	98	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, 12.7 mm)	105	°C	ASTM D648
CLTE - Flow	8.0E-5	cm/cm/°C	ASTM D696
Specific Heat	1670	J/kg/°C	ASTM C351
Thermal Conductivity	0.21	W/m/K	ASTM C177
Flammability	**Nominal Value**		**Test Method**
Flame Rating (NC)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	85.0 - 90.0	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	200 - 250	°C	
Middle Temperature	200 - 250	°C	
Front Temperature	200 - 250	°C	
Mold Temperature	40.0 - 80.0	°C	
Injection Pressure	68.6 - 108	MPa	

Injection instructions

Higher mold temperature provides a product with excellent surface finish and less residual stress.

Recommended distributors for this material

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