

HEAT Chemical Resistance Flame&Smoke Agency Listings

The unique performance advantages of Chlorinated Poly-Vinyl Chloride (CPVC) are available for processing on conventional vinyl injection molding equipment with TempRite compounds exclusively from Lubrizol, the world leader in CPVC markets, and technology.

Advances in CPVC injection molding material technology now allow cost-effective replacement of expensive engineering resins, and value-added substitution where commodity thermoplastics do not perform. Processing advantages and end-use benefits such as mechanical property retention at elevated temperatures and broad chemical resistance make TempRite® 88955 CPVC a uniquely performing engineering thermoplastic ideally suited for many applications.

TempRite® 88955 complies with the NSF/ANSI standard 50 which certifies materials for use in equipment for swimming pools, spas, hot tubs and other recreational water facilities.

Materials are available in made-to-stock colors directly from Lubrizol's global distribution network. Packaging options include gaylord boxes and bulk shipment.

	END USE BENEFIT	PROCESSING BENEFIT
MATERIAL PERFORMANCE	<ul style="list-style-type: none"> • HDT of 185°F for mechanical property retention at elevated service temperatures. • Broad chemical resistance for use in corrosive environments, for example, in presence of strong acids and bases. 	<ul style="list-style-type: none"> • Good melt flow index for low cycle times in complex parts. • Low shear sensitivity promotes longer run life • Suitable for common secondary operations such as machining and painting.
COST	<ul style="list-style-type: none"> • Improved processing in complex parts reduces cycle times and scrap rates. • Suited to tooling designed for good-practice molding of most amorphous thermoplastics. 	<ul style="list-style-type: none"> • Enhanced flow and processing stability for greater tool life. • Post-processor recyclable for efficient material usage.
QUALITY	<ul style="list-style-type: none"> • Improved processability produces consistent looking parts. • Smooth and polished finish for a high quality appearance part. 	<ul style="list-style-type: none"> • Wide processing window produces consistent looking parts. • Improved flow characteristics for high quality knit lines and better surface appearance.

PROPERTY TABLE ON REVERSE SIDE

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PROPERTY 88955 CPVC	TEST METHOD	TYPICAL VALUES FOR TESTED LOTS	
THERMAL			
Heat deflection under load 264 psi, 1/4" bar unannealed	ASTM D-646	185 °F 85 °C	
264 psi, 1/4" bar annealed		195 °F 90 °C	
Vicat softening , method A (5 kg)	ASTM D-1525	198 °F 92 °C	
Vicat softening , method B (1 kg)	ASTM D-1525	215 °F 101 °C	
Coefficient of thermal expansion -30 to +30°C	ASTM D-696	3.8 ×10 ⁻⁵ in/in °F 6.8 ×10 ⁻⁵ cm/cm °C	
MECHANICAL			
Tensile strength at yield (73°F/23°C)	ASTM D-638	7,500 psi 52 MPa	
Tensile modulus (73°F/23°C)	ASTM D-638	380,000 psi 2,600 MPa	
Flexural strength (73°F/23°C)	ASTM D-790	13,500 psi 90 MPa	
Flexural modulus (73°F/23°C)	ASTM D-790	390,000 psi 2,700 MPa	
Hardness, Rockwell R	ASTM D-785	115	
IMPACT			
Notched Izod 1/8" bar @ 73°F	ASTM D-256	6.2 ft-lb/in 330 J/m	
PHYSICAL			
Specific gravity Black 291 Gray 270	ASTM D-792	1.40 1.44	
Melt index 215°C, 10.1 kg load	ASTM D-1238	5.0 g/10 min	
Cell classification	ASTM D-1784	24445	
Water absorption 24 hours @ 23°C 24 hours @ 80°C	ASTM D-570	0.05 % wt. chg. 0.48 % wt. chg.	
Oil absorption 24 hours @ 23°C	ASTM D-570	-0.01 % wt. chg.	
Acid immersion (93% H₂SO₄) 14 days @ 55°C	ASTM D-570	1.77 % wt. chg. 4.1 % flex. str. chg.	
FLAMMABILITY			
2 mm	UL 94	5Va	
1.5 mm	UL94	V-0, 5Vb	