

HEAT Chemical Resistance Flame&Smoke Agency Listings

The unique performance advantages of Chlorinated Poly-Vinyl Chloride (CPVC) are available for processing on conventional vinyl extrusion equipment with TempRite LC 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. LC88029 is ideally suited for applications in regulated environments that specify materials with low combustion and high smoke suppression. Class 1 or A flame and smoke performance, mechanical property retention at elevated temperature, and broad chemical resistance make CPVC a uniquely performing engineering thermoplastic.

Lubrizol's technical center offers a full range of design, engineering, technical support services, and on-site processing assistance to shorten the application development cycle and accelerate commercialization. Sales offices in 11 worldwide locations offer unequalled service and support.

TempRite® LC88029 is made to order in white and is available directly from Lubrizol's global distribution network. Custom colors are also available. Packaging options include boxes and bulk shipment.

	END USE BENEFIT	PROCESSING BENEFIT
MATERIAL PERFORMANCE	<ul style="list-style-type: none"> • Class 1 or A flame and smoke performance (E-84 Steiner tunnel flame spread < 25, smoke developed < 450) for regulated environments. • Broad chemical resistance for use in corrosive environments, for example, in presence of strong acids and bases. • Mechanical property retention and dimensional stability at elevated service temperatures. 	<ul style="list-style-type: none"> • Good melt flow index for low cycle times in complex parts. • Reduced shear sensitivity promotes a 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 high quality looking parts consistently. • Improved flow characteristics for high quality knit lines and better surface appearance.

PROPERTY TABLE ON REVERSE SIDE

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PROPERTY	TEST METHOD	TYPICAL VALUES FOR TESTED LOTS	
		LC88029	UNITS
FLAMMABILITY Steiner tunnel 0.125" (3 mm) Flame spread index 0.125" (3 mm) Smoke developed index 0.040" (1 mm) Flame spread index 0.040" (1 mm) Smoke developed index	ASTM E-84 ASTM E-84 ASTM E-84 ASTM E-84	15 360 5 45	
THERMAL Heat deflection under load 264 psi, 1/8" bar annealed Vicat softening, method B (1kg) Coefficient of thermal expansion 1/8" bar, -30 to +30°C	ASTM D-648 ASTM D-1525 ASTM D-696	185 85 207 97 3.8 6.8	°F °C °F °C $\times 10^{-5}$ in/in-°F $\times 10^{-5}$ cm/cm-°C
MECHANICAL Tensile strength (73°F / 23°C) At yield Tensile modulus (73°F / 23°C) Flexural strength (73°F / 23°C) Flexural modulus (73°F / 23°C) Hardness, Rockwell R	ASTM D-638 ASTM D-638 ASTM D-790 ASTM D-790 ASTM D-785	7,200 50 470,000 3,250 13,400 92 455,000 3,140 112	psi MPa psi MPa psi MPa psi MPa
IMPACT Notched izod 1/8" bar @ 73°F	ASTM D-256	1.0 53	ft-lb/in J/m
PHYSICAL Specific gravity White 170	ASTM D-792	1.52	