



TRIVALENCE

TriVEX™ 12FR0 (U,R)

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TriVEX™ 12FR0 (U,R)

General Information

Product Description

Non halogenated flame retardant polycarbonate.

FEATURES

-Good Impact/Ductility
-Enhanced Flow and Release
-Flame Retardant
-RoHS/REACH Compliant
-Improved Chemical Resistance

-Halogen Free
-Bromine Free
-Chlorine Free

ADDITIONAL FORMULAS

-Added Release "R"
-Additional UV "U" - Great UV Performance

COLOR

-All

General

Typical Applications

-Solar, military and defense gear, healthcare, EV battery, sporting goods, safety and rescue, transportation, lawn and garden, industrial packaging, electrical components, oil/gas, appliance, aerospace, 3d printing, recreational vehicles, building materials, railway, wire and cable.

Processing Method

-Injection/Extrusion

Form(s)

-Pellets

Availability

-North America, Europe, Latin America

ASTM / ISO Properties¹

Physical

	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ASTM D792
Melt Flow Rate (300°C/1.2kg)	18	g/10min	ASTM D1238
Molding Shrinkage - Flow (3.2mm)	0.5 to 0.8	%	TVT Internal
Outdoor Suitability (QUV) (U Grades)	Pass		TVT Internal

Mechanical

	Nominal Value	Unit	Test Method
Tensile Strength, brk	8800	psi	ASTM D638
Tensile Elongation	120	%	ASTM D638
Flexural Modulus	320,000	psi	ASTM D790
Notched Izod Impact (R.T)	14	ft-lbs/in	ASTM D256
Rockwell Hardness	118	R-Scale	ASTM D785

Thermal

	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa)	270	°F	ASTM D648
Deflection Temperature Under Load (1.8 MPa)	250	°F	ASTM D648
Vicat Softening Temperature	280	°F	ASTM D1525
CLTE - Flow	3.4E-5	in/in/°F	ASTM E831

Flammability

	Nominal Value	Unit	Test Method
0.06 in	V0		UL94 - Pending
0.12 in	5V		UL94 - Pending

Recommended Processing Guidance

Drying Temperature	230 to 250	°F
Drying Time	3 to 6	Hours
Suggested Max Moisture	0.02	%
Processing Melt Temperature	500 to 590	°F
Mold Temperature	145 to 195	°F

¹ Note: The values listed on this guide are typical values based on general molding conditions and used solely for the purpose of general material processing. It is recommended that application properties be derived from actual molded articles, whereas properties as molded could vary. These are not to be used as specifications. This data does not provide an implied conditional warranty.