

Product Information

TROGAMID® CX9710 BL E50156 LA

MICROCRYSTALLINE, PERMANENTLY TRANSPARENT POLYAMIDE WITH LASER -MARKABLE AND -WRITEABLE PROPERTIES



TROGAMID® CX9710 BL E50156 LA is a microcrystalline, permanently transparent polyamide for the production of optical molded parts using the injection molding process and offers laser-markable and -writeable properties.

The crystallites are so small that they do not scatter visible light. The product thus appears transparent to the human eye. The microcrystalline structure gives this polymer excellent resistance to stress cracking.

TROGAMID® CX9710 BL E50156 LA is supplied as cylindrical granules in polyethylene packaging.

The results shown have been generated from a low number of production lots. In general, they are preliminary and not yet the result of a statistical evaluation. Therefore they must not be used to establish specifications.

Pigmentation may affect values.

Key Features

Industrial Sector

Industry and Engineering

Optics

Laser transparent, Laser markable

Processing

Injection molding

Electrical

Insulating

Delivery form

Pellets, Granules

Additives

Unfilled

Mechanical properties ISO

dry / cond

Unit

Test Standard

Tensile modulus

222000 / -

psi

ISO 527

Tensile strength

8850 / -

psi

ISO 527

TROGAMID® CX

Yield stress	8850 / -	psi	ISO 527
Yield strain	8 / -	%	ISO 527
Stress at 50% strain	6090 / -	psi	ISO 527
Stress at break	8990 / -	psi	ISO 527
Nominal strain at break, tB	160 / -	%	ISO 527
Charpy impact strength, +23°C	N / -	ftlb/in ²	ISO 179/1eU
Charpy impact strength, -40°C	N / -	ftlb/in ²	ISO 179/1eU
Charpy notched impact strength, +23°C	4.76 / -	ftlb/in ²	ISO 179/1eA
Type of failure	C / -	-	-
Charpy notched impact strength, -40°C	4.28 / -	ftlb/in ²	ISO 179/1eA
Type of failure	C / -	-	-

Physical properties	dry / cond	Unit	Test Standard
Density	1.02 / -	g/cm ³	ISO 1183
Density	1.02	g/cm ³	ASTM D 792

Optical properties	dry	Unit	Test Standard
Color b	-30	-	CIE

Polymer analytics	dry / cond	Unit	Test Standard
Viscosity number	4350 / *	in ³ /lb	ISO 307, 1157, 1628

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	536	°F	ISO 294
Injection Molding, mold temperature	176	°F	ISO 294
Injection Molding, injection velocity	7.87	in/s	ISO 294

Characteristics

TROGAMID® CX

Applications

Encapsulation

Color

Blue

Special Characteristics

Semi-crystalline, Environmental stress crack resistance

Additives

Laser absorptions agent, Processing aids