

Product Texts

ELCRES DMX6034 is an impact modified, improved scratch resistant polycarbonate copolymer. This medium flow, UV stabilized, custom colorable resin is an excellent candidate for wide variety of electronics, consumer, and industrial applications that require a balance of scratch resistance and ductility.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	9	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	10	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-
Mold Shrinkage, MD	0.0065	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.0065	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2080	MPa	ISO 527
Yield stress	61	MPa	ISO 527
Yield strain	7	%	ISO 527
Stress at break	54	MPa	ISO 527
Strain at break	88	%	ISO 527
Flexural modulus, 23°C	2150	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	270	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	275	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	27	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	3	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	183	kJ/m ²	ISO 180/1U
ASTM Data			
Tensile Modulus	2268	MPa	ASTM D 638
Tensile Strength at Yield	62	MPa	ASTM D 638
Tensile Strength at Break	52	MPa	ASTM D 638
Elongation at Yield	7	%	ASTM D 638
Elongation at Break	65	%	ASTM D 638
Flexural Modulus	2130	MPa	ASTM D 790
Izod Impact notched, 1/8 in	300	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	82	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	N	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	113	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	129	°C	ISO 75-1/-2
Vicat softening temperature, B	134	°C	ISO 306
Coeff. of linear therm. expansion, parallel	72	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	81	E-6/K	ISO 11359-1/-2
ASTM Data			
Coefficient of Thermal Expansion, MD	72	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	81	E-6/K	ASTM D 696
DTUL @ 66 psi	129	°C	ASTM D 648
DTUL @ 264 psi	114	°C	ASTM D 648
Vicat Temperature	134	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Density	1180	kg/m ³	ISO 1183
Water Absorption, 24hr	0.08	%	ASTM D 570

Density	1180	kg/m ³	ASTM D 792
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Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	290 - 310	°C	-
Mold temperature	60 - 85	°C	-
Zone 1	260 - 280	°C	-
Zone 2	280 - 305	°C	-
Zone 3	290 - 310	°C	-
Nozzle temperature	290 - 310	°C	-

Characteristics

Processing

Injection Molding

Special Characteristics

High impact or impact modified, U.V. stabilized or stable to weather

Features

Ductile, Scratch Resistant, Copolymer

Applications

Automotive, IT / Business Machine, Electrical and Electronical, Sports Equipment

Regional Availability

North America, Europe, Asia Pacific, South and Central America