LNP™ ELCRES™ FST2732E

DESCRIPTION

LNP ELCRES FST2732E resin is a UV stabilized, glass fiber reinforced polycarbonate Copolymer Resin in opaque colors for sheet extrusion and thermoforming processes. This non-chlorinated, non-brominated flame retardant resin is EN 45545 R6–HL2 compliant and an ideal candidate for train interior applications.

GENERAL INFORMATION	
Features	Flame Retardant, Good Processability, Low Smoke and Toxicity, Non Cl/Br flame retardant, No PFAS intentionally added
Fillers	Mineral, Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polycarbonate (PC)
Processing Techniques	Extrusion

INDUSTRY	SUB INDUSTRY
Mass Transportation	Rail

TYPICAL PROPERTY VALUES

Revision 20260317

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 1 mm/min	3850	MPa	ISO 527
Tensile Stress, yield, 5 mm/min	50	MPa	ISO 527
Tensile Stress, break, 5 mm/min	42	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.6	%	ISO 527
Tensile Strain, break, 5 mm/min	7	%	ISO 527
Flexural Modulus, 2 mm/min	3800	MPa	ISO 178
Flexural Strength, 2 mm/min	83	MPa	ISO 178
Tensile Modulus, 5 mm/min	3900	MPa	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	50	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	41	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3.8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	6.8	%	ASTM D638
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	17	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	10	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	86	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	68	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	16	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	9	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*3 +23°C	91	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	69	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	15	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	96	kJ/m²	ISO 179/1eU

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched, 23°C	143	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1200	J/m	ASTM D4812
THERMAL [1]			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	118	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	126	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	124	°C	ISO 306
Vicat Softening Temp, Rate B/120	126	°C	ISO 306
CTE			
-40°C to 90°C, flow	3.6E-05	1/°C	ISO 11359-2
-40°C to 90°C, xflow	7.4E-05	1/°C	ISO 11359-2
HDT, 1.82 MPa, 3.2mm, unannealed	116	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	125	°C	ASTM D648
Ball Pressure Test			
125°C +/- 2°C	PASS	-	IEC 60695-10-2
PHYSICAL [1]			
Density	1.29	g/cm³	ISO 1183
Melt Volume Rate, MVR at 250°C/2.16 kg	4	cm³/10 min	ISO 1133
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.12	%	ISO 62-4
FLAME CHARACTERISTICS [1]			
Smoke density, DS-4, 50 kW/m2 [2]	< 300	-	ISO 5659-2
Smoke density, VOF4, 50 kW/m2 [2]	< 600	-	ISO 5659-2
Smoke toxicity, CITG (8 min), 50 kW/m2 [2]	< 0.9	-	ISO 5659-2
Heat release, MAHRE, 50 kW/m2 [2]	< 90	kW/m²	ISO 5660-1
Fire Safety Hazard Level - Requirement set R6 [2] [3]	HL2	-	EN 45545-2
EXTRUSION			
Drying Temperature	90 – 105	°C	
Drying Time	3 – 6	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	230 – 280	°C	
Barrel - Zone 1 Temperature	210 – 260	°C	
Barrel - Zone 2 Temperature	220 – 270	°C	
Barrel - Zone 3 Temperature	230 – 280	°C	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 2 to 4 mm

(3) based on EN 45545-2: 2020 revision

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2026 Copyright by SABIC. All rights reserved