SABIC® PPCOMPOUND 8620

PP COMPOUND MINERAL FILLED IMPACT MODIFIED
REGION AMERICAS

DESCRIPTION

SABIC® PPcompound 8620 is a mineral filled, impact modified polypropylene TPO. This material combines scratch resistance and good flow with exterior automotive weathering stability. It was originally designed for painted or unpainted automotive bumper fascia applications where a combination of high stiffness and cold temperature ductility is required.

IMDS ID: 209747700

TYPICAL PROPERTY VALUES

Revision 20211206

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	17	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	12	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	101	%	ASTM D638
Tensile Modulus, 50 mm/min	1900	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1380	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	17	MPa	ISO 527
Tensile Stress, break, 50 mm/min, 1A	11	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.4	%	ISO 527
Tensile Strain, break, 50 mm/min	39	%	ISO 527
Tensile Modulus, 1 mm/min	1680	MPa	ISO 527
Flexural Modulus, 2 mm/min, 64mm span	1740	MPa	ISO 178
Hardness, Shore D	54	-	ISO 868
IMPACT			
Izod Impact, unnotched, 23°C, 63.5*12.7*3.2mm, Cut	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C, 63.5*12.7*3.2mm, Cut	541	J/m	ASTM D256
Instrumented Impact Energy @ peak, 23°C @ 2.2 m/s	16	J	ASTM D3763
Instrumented Impact Energy @ peak, 0°C @ 2.2 m/s	17	J	ASTM D3763
Instrumented Impact Energy @ peak, -30°C @ 2.2 m/s	21	J	ASTM D3763
Izod Impact, notched, 23°C, 80*10*4mm, Cut	49	kJ/m²	ISO 180/1A
Izod Impact, notched, 0°C, 80*10*4mm, Cut	25	kJ/m²	ISO 180/1A
Izod Impact, notched, -30°C, 80*10*4mm, Cut	6	kJ/m²	ISO 180/1A
Charpy Impact, notched, 23°C, 80*10*4mm, Cut	58	kJ/m²	ISO 179/1eA
Charpy Impact, notched, 0°C, 80*10*4mm, Cut	25	kJ/m²	ISO 179/1eA
Charpy Impact, notched, -30°C, 80*10*4mm, Cut	7	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 0.45 MPa, 3.2 mm	98	°C	ASTM D648
HDT, 1.82 MPa, 3.2 mm	52	°C	ASTM D648
CLTE, -30C to 100°C, flow	41	µm/mK	ISO 11359-2
CLTE, -30C to 100°C, xflow	167	µm/mK	ISO 11359-2
Vicat Softening 10N, 50°C/hr	123	°C	ISO 306

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT 0.45 MPa, 80*10*4mm, Cut	100	°C	ISO 75-1&2
HDT 1.8 MPa, 80*10*4mm, Cut	56	°C	ISO 75-1&2
PHYSICAL			
Specific Gravity	1.03	-	ASTM D792
Mold Shrinkage, 48 hrs @ 23°C, flow	0.4	%	SABIC method
Mold Shrinkage, 48 hrs @ 23°C, xflow	0.7	%	SABIC method
Mold Shrinkage, 1 hr @ 80°C, flow	0.5	%	SABIC method
Mold Shrinkage, 1 hr @ 80°C, xflow	0.8	%	SABIC method
Mold Shrinkage, 30 min @ 120°C, flow	0.6	%	SABIC method
Mold Shrinkage, 30 min @ 120°C, xflow	0.9	%	SABIC method
Density	1.03	g/cm³	ISO 1183
Melt Flow Rate, 230°C/2.16 kg	23	g/10 min	ISO 1133
INJECTION MOLDING			
Drying Temperature	80 – 100	°C	
Drying Time	2 – 4	Hrs	
Melt Temperature	210 – 270	°C	
Nozzle Temperature	210 – 270	°C	
Front - Zone 3 Temperature	210 – 270	°C	
Middle - Zone 2 Temperature	200 – 250	°C	
Rear - Zone 1 Temperature	190 – 230	°C	
Mold Temperature	15 – 60	°C	
Back Pressure	1 – 1.5	MPa	

STORAGE AND HANDLING

Avoid prolonged storage in open sunlight, high temperatures (<50 °C) and/or high humidity as this could well speed up alteration and consequently loss of quality of the material and/or its packaging. Keep material completely dry for good processing.

DISCLAIMER