SABIC® PPCOMPOUND 8620A

PP COMPOUND MINERAL FILLED IMPACT MODIFIED
REGION AMERICAS

DESCRIPTION

SABIC® PPcompound 8620A is a mineral filled, impact modified polypropylene TPO. It was originally designed for painted automotive bumper fascia applications where a combination of good flow, high stiffness, and cold temperature ductility is required.

IMDS ID: 209747752

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	4.7	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	100.8	%	ASTM D638
Tensile Modulus, 50 mm/min	1890	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1420	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	17	MPa	ISO 527
Tensile Stress, break, 50 mm/min, 1A	13	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.8	%	ISO 527
Tensile Strain, break, 50 mm/min	41	%	ISO 527
Tensile Modulus, 1 mm/min	1660	MPa	ISO 527
Flexural Modulus, 2 mm/min, 64mm span	1780	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	510	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	47	kJ/m²	ISO 180/1A
Izod Impact, notched, 0°C, 80*10*4mm, Cut	31	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	55	kJ/m²	ISO 179/1eA
Charpy Impact, notched, 0°C, 80*10*4mm, Cut	32	kJ/m²	ISO 179/1eA
Charpy Impact, notched, -30°C, 80*10*4mm, Cut	6	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 0.45 MPa, 3.2 mm	99	°C	ASTM D648
HDT, 1.82 MPa, 3.2 mm	53	°C	ASTM D648
CLTE, -30C to 100°C, flow	32	µm/mK	ISO 11359-2
CLTE, -30C to 100°C, xflow	172	µm/mK	ISO 11359-2
Vicat Softening 10N, 50°C/hr	122	°C	ISO 306
HDT 0.45 MPa, 80*10*4mm, Cut	100	°C	ISO 75-1&2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	21	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