SABIC® PPCOMPOUND 7705

PP COMPOUND MINERAL FILLED IMPACT MODIFIED
REGION AMERICAS

DESCRIPTION

SABIC® PPcompound 7705 is a mineral filled modified polypropylene. This material combines high scratch resistance, high stiffness, good impact and high flow. This material has a very broad processing window combined with good esthetical performance. Typical applications include esthetical automotive interior parts such as instrument panels, lower and upper dashboard, door panels and trim.

SABIC® PPcompound 7705 is a designated automotive grade.

IMDS ID: 16161010

TYPICAL PROPERTY VALUES

Revision 20211207

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	23	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	16	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	4.6	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	24	%	ASTM D638
Tensile Modulus, 50 mm/min	1900	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1900	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	22	MPa	ISO 527
Tensile Stress, break, 50 mm/min, 1A	17	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.4	%	ISO 527
Tensile Strain, break, 50 mm/min	32	%	ISO 527
Tensile Modulus, 1 mm/min	2010	MPa	ISO 527
Flexural Modulus, 2 mm/min, 64mm span	2070	MPa	ISO 178
Hardness, Shore D	60	-	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	118	J/m	ASTM D256
Instrumented Impact Energy @ peak, 23°C @ 6.6 m/s	22	J	ASTM D3763
Instrumented Impact Energy @ peak, 0°C @ 6.6 m/s	19	J	ASTM D3763
Instrumented Impact Energy @ peak, -30°C @ 6.6 m/s	7	J	ASTM D3763
Izod Impact, notched, 23°C, 80*10*4mm, Cut	20	kJ/m²	ISO 180/1A
Izod Impact, notched, 0°C, 80*10*4mm, Cut	6	kJ/m²	ISO 180/1A
Izod Impact, notched, -30°C, 80*10*4mm, Cut	3	kJ/m²	ISO 180/1A
Charpy Impact, notched, 23°C, 80*10*4mm, Cut	NB	kJ/m²	ISO 179/1eA
Charpy Impact, notched, -30°C, 80*10*4mm, Cut	2	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 0.45 MPa, 3.2 mm	112	°C	ASTM D648
HDT, 1.82 MPa, 3.2 mm	57	°C	ASTM D648
CLTE, -30C to 100°C, flow	59	µm/mK	ISO 11359-2
CLTE, -30C to 100°C, xflow	148	µm/mK	ISO 11359-2
Vicat Softening 10N, 50°C/hr	130	°C	ISO 306

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT 0.45 MPa, 80*10*4mm, Cut	105	°C	ISO 75-1&2
HDT 1.8 MPa, 80*10*4mm, Cut	59	°C	ISO 75-1&2
PHYSICAL			
Specific Gravity	1.05	-	ASTM D792
Density	1.04	g/cm³	ISO 1183
Melt Flow Rate, 230°C/2.16 kg	22	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