

ABS EXTRUSION GRADES

Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	B432/E	B532/E	B732/E	D232/M3	C442
General								
Density		ISO 1183	g/cm ³	1.04	1.04	1.04	1.04	1.04
Water Absorption		ASTM D 570	%	0.3	0.3	0.3	0.3	0.3
Rheological								
Melt Flow Rate (MFR)		ISO 1133	g/10min	4	5	4.5	8	6
Mechanical								
Tensile Strength	50 mm/min	ASTM D 638	MPa	45	35	45	27	43
Strain at break	50 mm/min	ASTM D 638	%	45	45	45	100	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	68	68	60	40	65
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2300	2300	2200	1550	2300
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	220	280	350	110	200
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	165	190	300	90	165
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	125	150	200	80	125
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	100	125	140	75	100
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	17	20	28	9.5	17
	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	9	10	12	7	9
Charpy Impact Strength, Notched	+23°C	DIN 53453	kJ/m ²	12	16	20	9	12
Unnotched	+23°C	DIN 53453	kJ/m ²	NB	NB	NB	NB	NB
Unnotched	- 40°C	DIN 53453	kJ/m ²	NB	NB	NB	NB	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R110	R110	R103	R97	R110
Thermal								
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	109	108	109	106	114
	50 N - 120°C/h	ISO 306/B120	°C	104	104	104	101	108
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	104	104	100	101	108
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9	9	9	9	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17	0.17	0.17	0.17	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6
Flammability								
Flame behaviour	thickness 1.5 mm	UL 94	class	HB	HB	HB	HB	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650	650	650	650	650
Electrical								
Surface resistivity	dry	IEC 60093	ohm	10+14	10+14	10+14	10+14	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15	10+15	10+15	10+15	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30	30	30	30	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1	3.1	3.1	3.1	3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³	15*10 ⁻³	15*10 ⁻³	15*10 ⁻³	15*10 ⁻³
Main Features								
				"Sheets and profile Medium impact strength."	"Sheets and profile. Good impact strength, high toughness"	"Very high impact strength"	"Low gloss, extrusion"	"Heat resistance, good flow and good impact strength"
Main Applications & Properties								
"Keys: Packaged product should be protected from the atmospheric agents and stored out of direct sunlight NB: No Break /M: Matt - Digit following letter/ M indicates increasing values of mattness				Plain or coextruded with high draw ratios for refrigeration, sanitary, automotive, packaging, housholding (profiles)	Plain or coextruded with high draw ratios for refrigeration, sanitary, automotive, packaging, housholding (profiles)	Extrusion of thick sheets for sanitary and automotive applications	Extrusion/ coextrusion of sheets with matt surface, household profiles	"Automotive interior (extruded profiles, interior trim), exterior (grilles, mirrors)"