M - 001

TECHNICAL DATA SHEET

CTE Material name: LONBEL® ABS

ACRYLONITRILE BUTADIENE STYRENE (ABS)

Options: Golssy, mat, semimat, recycled, light,

n.t.= Not tested

APPLICATIONS

Glossy: Industrial, visual and aesthetics applications

Mat: Logistics, packaging and automotive industries

Semimat: Transportation and trays

Recycled: Transportation, packagind and trays

Light: Aircraft, electrical and rehabilitation industries

CHARACTERISTICS

Vacuun formable, glossy surface

Vacuun formable, mat surface

Vacuun formable, high impact strength

Vacuun formable, high impact strength

Low moisture absorption, good noise absorption, high stiffness

GENERAL PROPERTIES	Unit	Test method	Value				
			Glossy	Mat	Semimat	Recycled	Light
Density	g/cm³	DIN EN ISO 1183-1	1,1	1,1	1,1	1,1	1,05
Water absorption	%	DIN EN ISO 62	0,3	0,3	0,3	0,3	0,3
Flammability		UL 94	HB	HB	HB	HB	HB/HB
MECHANICAL PROPERTIES							
Yield stress	Mpa	DIN EN ISO 527	46	24	50	32	38
Elongation at break	%	DIN EN ISO 527	24	51	55	35	50
Tensile modulus of elasticity	Mpa	DIN EN ISO 527	2400	1595	2075	2120	2000
Notched impact strength	kJ/m²	DIN EN ISO 179	13	9	21	21	25
Shore hardness	scale D	DIN EN ISO 868	n.t.	n.t.	n.t.	n.t.	74
Rockwell hardness	scale R	DIN EN ISO 2039-2	110	97	80	80	n.t.
THERMAL PROPERTIES							
Thermal conductivity	W/(m*K)	DIN 52612-1	0,17	0,17	0,17	0,17	0,17
Thermal capacity	KJ/(kg*K)	DIN 52612	n.t.	n.t.	n.t.	n.t.	1,2
Coeefficient of linear thermal expansion	10^{-6}/K	DIN 53752	90	90	90	90	90
Service temperature long term	ºC	Average	85	85	85	85	-40 / 80
Service temperature short term max.	ºC	Average	100	100	100	100	100
Vicat softening temperature	ºC	DIN EN ISO 306, Vicat B	103	102	102	102	n.t.
ELECTRICAL PROPERTIES							
Volume resistivity	Ω	DIN EN 61340	$>10^{12}$	$>10^{12}$	$>10^{12}$	$>10^{12}$	n.t.
Surface resistivity	Ω	DIN EN 61340	$>10^{12}$	$>10^{12}$	$>10^{12}$	$>10^{12}$	n.t.
Volume resistivity	Ω * cm	IEC 60093	n.t.	n.t.	n.t.	n.t.	10^{15}
Surface resistivity	Ω	IEC 60093	n.t.	n.t.	n.t.	n.t.	10^{14}
Dielectric constant		IEC 60250	n.t.	n.t.	n.t.	n.t.	3,1
Dielectric dissipation factor (50 Hz)		IEC 60250	n.t.	n.t.	n.t.	n.t.	0,015
Comparative tracking index		IEC 60112	n.t.	n.t.	n.t.	n.t.	600
Dielectric strength	Kv/mm	IEC 60243	n.t.	n.t.	n.t.	n.t.	20

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