

# LEMALLOY

Modified PPE Resin

Properties	Test Method	Terms	Units	Filler Reinforced PPE/PA6		
				BX503A-1	BX504D	
				High Rigidity		
				Filler	Filler	
				-	-	
				dry(50%RH)	dry(50%RH)	
<b>Physical properties</b>						
Density	ISO 1183	-	g/cm <sup>3</sup>	1.19	1.22	
Water absorption	-	23degC, 50%RH 23degC, 60%RH 23degC, Underwater	%	- - -	- - -	
<b>Rheological properties</b>						
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	-	-	
Melt Volume-flow Rate			cm <sup>3</sup> /10min	59	21	
Moulding shrinkage	-	-	degC	280	280	
Moulding shrinkage (3.2mmt)	-	MD TD	kg	5	5	
Moulding shrinkage (1mmt)	-	MD TD	%	- -	- -	
Moulding shrinkage (2mmt)	-	MD TD	%	- -	- -	
Moulding shrinkage (3mmt)	-	MD TD	%	- -	- -	
<b>Mechanical properties</b>						
Tensile modulus	ISO 527-1 , 527-2	-	MPa	3100 (1700) 67 (46) 4.5 (9.0) 29 (124)	4200 (2200) - (42) - (8.4) - (74)	
Yield stress			%	-	-	
Yield strain			MPa	-	-	
Nominal strain at break			%	-	62 (-) 6.1 (-)	
Stress at 50% strain			%	-	-	
Stress at break			MPa	110 (68) 3400 (1800)	105 (57) 4200 (2100)	
Strain at break						
Flexural strength	ISO 178	-	MPa			
Flexural modulus						
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m <sup>2</sup>	-	-	
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	11 (14)	6 (12)	
<b>Thermal properties</b>						
Melting temperature	ISO 11357-3		degC	-	-	
Glass transition temperature	ISO 11357-2		degC	-	-	
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	121 179	95 182	
Vicat softening temperature	ISO 306	-	degC	-	-	
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	8.0E-05	6.0E-05	
	UL94	-	-	-	-	
Flammability	UL94	0.4mmt	-	-	-	
Flammability	UL94	0.8mmt	-	-	-	
Flammability	UL94	1.6mmt	-	-	-	
Flammability	UL94	3.2mmt	-	-	-	
GWFI(Glow-wire flammability test method for materials)	IEC 60695-2-12	3.0mmt	-	-	-	
GWIT(Glow-wire ignitability test method for materials)	IEC 60695-2-13	3.0mmt	-	-	-	
<b>Electrical properties</b>						
Relative permittivity	IEC 60250	100Hz 1MHz	-	-	-	
Dissipation factor	IEC 60250	100Hz 1MHz	-	-	-	
Volume resistivity	IEC 60093	-	ohm-m	-	-	
Surface resistivity	IEC 60093	-	ohm	-	-	
Electric strength	IEC 60243-1	1mmt 2mmt 3mmt	MV/m	-	-	
Comparative tracking index	IEC 60112 UL746A	-	-	-	-	

The listed properties are portrayed as general information only and are not product specifications.

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