

# Dupital

Polyacetal Resin

Properties	Test Method	Terms	Units	Low friction and Wear-Resistant			
				LO-21A	FX-11	FX-11J	WA-11H
				Lubricant	Lubricant	Lubricant	Lubricant
				-	-	-	-
<b>Physical properties</b>							
Density	ISO 1183	-	g/cm <sup>3</sup>	1.39	1.39	1.39	1.39
Water absorption	-	23degC, 60%RH	%	0.22	0.22	0.22	0.22
<b>Rheological properties</b>							
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	10	10	53	29
Melt Volume-flow Rate			cm <sup>3</sup> /10min	8.6	8.6	46	25
			degC	190	190	190	190
			kg	2.16	2.16	2.16	2.16
Moulding shrinkage (3mmt)	-	MD TD	%	2.0 -	2.1 -	2.1 -	2.1 -
<b>Mechanical properties</b>							
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2700	2700	2700	2900
Yield stress			56	55	55	58	
Yield strain			%	9.0	9.0	7.5	8.0
Nominal strain at break			40	35	25	21	
Stress at break			MPa	-	-	-	-
Strain at break	%	-	-	-	-		
Flexural strength	ISO 178	-	MPa	80	81	81	89
Flexural modulus			2500	2500	2500	2800	
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m <sup>2</sup>	150	200	100	150
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	7.0	7.0	5.0	5.0
<b>Thermal properties</b>							
Melting temperature	ISO 11357-3		degC	166	166	166	170
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	100 156	100 156	95 156	100 -
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	1.1E-04 1.1E-04	1.1E-04 1.1E-04	1.1E-04 1.1E-04	1.1E-04 1.1E-04
Flammability	UL94	0.8mmt	-	HB	HB	HB	HB
<b>Electrical properties</b>							
Relative permittivity	IEC 60250	100Hz 1MHz	- -	- -	- -	- -	- -
Dissipation factor	IEC 60250	100Hz 1MHz	- -	- -	- -	- -	- -
Volume resistivity	IEC 60093	-	ohm-m	1.E+12	1.E+12	1.E+12	1.E+12
Surface resistivity	IEC 60093	-	ohm	1.E+16	1.E+16	1.E+16	1.E+16
Electric strength	IEC 60243-1	1mmt 3mmt	MV/m	30 18	36 19	36 19	- -
Comparative tracking index	IEC 60112	-	-	600	600	600	-

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

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