Resinoid Engineering Corporation
7557 N. ST. LOUIS AVENUE . SKOKIE, ILLINOIS . 60076 . TELEPHONE (847) 673-1050 . FAX (847) 673-2160

PHENOLIC MOLDING COMPOUND SUMMARY FLIPCHART-FIBERGLASS REINFORCED COMPOUNDS 1/5/2010

			Chopped Fiberglass Reinforced							Milled Glass		
Material Properties	Unit	ASTM Test Method	**1322**	**1328**	**1345**	**1360HR**	**1365**	**1371**	**1382**	**1505**	**1528**	**1550**
Form			Pellet	Pellet	Pellet	Pellet	Pellet	Pellet	Pellet	Pellet	Pellet	Pellet
Color			Black	Black	Black	Black	Black	Black	Black	Green	Black	Black
Bulk Factor		D1895	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3
Specific Gravity		D792A	2.00	1.96	2.00	1.75	1.70	1.85	1.89	1.86	1.81	2.47
Shrinkage (Positive Mold)	in/in	D955	0.002	0.002	0.001		0.0015		0.001	0.001	0.001	0.001
Water Absorption (24 Hr RT)	%	D570	0.1	0.12	0.1	0.35		0.15			0.08	
Mechanical Properties												
Tensile Strength	psi	D651	9300	5066	8500	9800	8000	7566	11500	5570	11300	
Flexural Strength	psi	D790	12800	12800	12000	20000	17000	13000	16600	14100	15000	10750
Flexural Modulus	psi	D790	2.20E+06	2.20E+06	2.20E+06	2.20E+06		2.30E+06	2.40E+06	2.30E+06	2.30E+06	2.00E+06
Compressive Strength	psi	D695	25500	24138	27000	24500	30000	27000	29600	36500	32400	31500
Impact (IZOD notched)	ft-lb/in	D256A	0.90	1.06	1.30	2.25	3.00	1.10	2.20	0.45	0.48	0.70
Rockwell Hardness	M	D785	110	112	110				109			
Thermal Properties												
Heat Deflection Temperature	F	D648	550	>600	572	>680	600	>630	>600			
Flame Resistance 1/16"		UL94	94V-0	94V-1	94V-1	94HB		94V-0	94V-1	94HB	94V-0	
1/8"		UL94	94V-0	94V-0	94V-0	94HB		94V-0	94V-0	94V-0	94V-0	
1/4"		UL94	94V-0	94V-0	94V-0	94V-0		94V-0	94V-0	94V-0	94V-0	
Coefficient of Linear Thermal Expansion	in/in/F	D696		1.46E-05	1.50E-05							
Electrical Properties												
Dielectric Strength (ST, dry)	V/mil	D149	240	333	300	275	330	250	320	330	320	
Arc Resistance	sec	D495	190	204	180				180	180	245	

Flip for organic and fabric reinforced compounds ⟶

Resinoid Engineering Corporation
7557 N. ST. LOUIS AVENUE . SKOKIE, ILLINOIS . 60076 . TELEPHONE (847) 673-1050 . FAX (847) 673-2160

PHENOLIC MOLDING COMPOUND SUMMARY FLIPCHART-ORGANIC AND FABRIC REINFORCED COMPOUNDS 1/5/2010

			Organic Fiber			Graphite	Chopped Fabric Reinforced						Graphite
Material Properties	Unit	ASTM Test Method	**2005**	**2101**	**2215**	**2315**	**2002-C5**	**2002-4A**	**2016L**	**2016P**	**2020**	**2277**	**2089**
Form			Pellet	Pellet	Pellet	Pellet	Fabric	Fabric	Fabric	Pellet	Fabric	Pellet	Fabric
Color			Black	Black	Black	Black	Black	Natural	Black	Black	Black	Black	Black
Bulk Factor		D1895	2-4	2-4	2-4	2-4	8-10	10-12	8-10	2-4	10-12		10-12
Specific Gravity		D792A	1.39	1.46	1.45	1.45	1.45	1.40	1.37	1.37	1.40	1.41	1.44
Shrinkage (Positive Mold)	in/in	D955	0.003	0.004		0.002	0.0025	0.003	0.0025	0.0025	0.003	0.002	0.0015
Water Absorption (24 Hr RT)	%	D570	<1.0	1.0	0.5	0.5	0.7	0.6	0.8	0.8	0.5	0.8	0.8
Mechanical Properties													
Tensile Strength	psi	D651	6000	8500	7000	5150	7000	8000	8400	8400	7000	6000	
Flexural Strength	psi	D790	10000	12250	11500	7500	14000	14000	12000	12000	14350	13100	10000
Flexural Modulus	psi	D790	1.20E+06	1.13E+06	1.40E+06			1.60E+06				1.30E+06	1.20E+06
Compressive Strength	psi	D695	20000	25000	26000	24700	22000	21700	24500	23000	23000	22200	15900
Impact (IZOD notched)	ft-lb/in	D256A		0.40	0.70	0.80	2.75	2.10	2.40	1.30	2.10	2.00	2.40
Rockwell Hardness	M	D785					98		108	108			
Thermal Properties													
Heat Deflection Temperature	F	D648			390		400	350	460	460	400		
Flame Resistance 1/16"		UL94	94HB	94HB	94HB		94HB	94HB			94HB		
1/8"		UL94	94HB	94HB	94HB		94HB	94HB			94HB		
1/4"		UL94	94V-0	94V-0	94V-0		94V-0	94V-0			94V-0		
Coefficient of Linear Thermal Expansion	in/in/F	D696						1.00E-05	2.20E-05	2.20E-05			
Electrical Properties													
Dielectric Strength (ST, dry)	V/mil	D149	>250	290	220			325	245	245	220	320	
Arc Resistance	sec	D495		75	100				115	115		125	

Flip for fiberglass reinforced compounds →