



# Resinoid Engineering Corporation

Compound Number <b>1345</b>
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Resinoid 1345 is a glass reinforced, two-step phenolic molding compound. It was specifically developed for molded electric motor commutators where performance for prolonged periods at elevated temperatures while under centrifugal loads is critical. This material comes in pelletized form and is suitable for injection, transfer or compression molding.

## MATERIAL PROPERTIES

	ASTM	ISO	US UNIT	SI UNIT
FORM			PELLET	PELLET
BULK FACTOR	D1895	171	2-3	2-3
SHRINKAGE-MOLDED (POSITIVE MOLD)	D955	2577	0.001 in/in	0.1%
COLOR			BLACK	BLACK

## MECHANICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY	D792A	1183	2.00	2.00 <sub>23</sub> <sup>23</sup>
WATER ABSORPTION (24 HR. R.T.)	D570	62-1	0.1%	0.1%
TENSILE STRENGTH	D651	R527-3	8,500 psi	59 MPa
FLEXURAL STRENGTH	D790	178	12,000 psi	83 MPa
MODULUS IN FLEX	D790	178	2.2x10 <sup>6</sup> psi	1.5x10 <sup>4</sup> MPa
IMPACT (IZOD, NOTCHED)	D256A	180/2A	1.3 ft-lb/in	6.83 kJ/m <sup>2</sup>
COMPRESSIVE STRENGTH	D695	604	27,000 psi	186 MPa
HARDNESS, ROCKWELL	D785	2039-2	E90/M110	M110

## ELECTRICAL PROPERTIES

DIELECTRIC STRENGTH (S.T.) DRY	D149	IEC243	300 V/mil	11.8 kV/mm
ARC RESISTANCE	D495		180 sec	180 sec

## THERMAL PROPERTIES

DEFLECTION TEMPERATURE	D648	75A	572°F @ 264 psi	300 °C @ 1.8 MPa
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696		1.5x10 <sup>-5</sup> in/in/°F	2.7 x10 <sup>-5</sup> mm/mm/°C
FLAME RESISTANCE	UL94		94 V-0	

The above values are typical of standard procedures such as ASTM. No assurance is given that the above data will be duplicated. Results can be affected by many variables including part design, storage and mold design. NO GUARANTEE, WARRANTY or REPRESENTATION, express or implied, is made for the performance or stability of Resinoid molding materials. Each user must conduct their own tests to determine the suitability of Resinoid molding materials for their particular application.