

PLASTICS ENGINEERING COMPANY

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MATERIALS ENGINEERING LABORATORY DATA REPORT **Plenco 00755** Melamine-Phenolic

transfer molded

Plenco 00755 is a melamine-phenolic copolymer molding compound offering excellent electrical and flame resistant properties. UL recognized under component file E40654. 00755 is available only in brown. 00755 was qualified under military specification MIL-M-14 (superseded by ASTM D-5948) TYPE CMG and batches can, if requested and paid for, be tested for certification to the standard.

PROPERTY metric english Form Granular Apparent Density 0.58 g/cm³ 36.3 lb/ft³ Specific Gravity 1.60 Mold Shrinkage* 0.0068 m/m 0.0068 in/in Post Shrinkage 72hr 120°C 0.96 % Izod Impact Notched 19.3 J/m 0.36 ft·lb/in Charpy Impact Notched 21.5 J/m 0.40 ft·lb/in Drop Ball Impact 101 J/m 1.9 ft·lb/in Tensile Strength 56 MPa 8,145 psi Tensile Bodulus 10,763 MPa 1,561,000 psi Tensile Elongation 0.7 % Flexural Modulus 8,513 MPa 1,235,000 psi Flexural Modulus 8,513 MPa 1,235,000 psi Compressive Strength 166 MPa 24,139 psi Heat Resistance 155 °C 310 °F Deflection Temperature 1.82MPa 186 °C 367 °F Water Absorption 0.43 % 1 367 °F 9.43 % 36.5 %	
Specific Gravity1.60Mold Shrinkage*0.0068 m/m0.0068 in/inPost Shrinkage72hr 120°C0.96 %Izod Impact Notched19.3 J/m0.36 ft·lb/inCharpy Impact Notched21.5 J/m0.40 ft·lb/inDrop Ball Impact101 J/m1.9 ft·lb/inTensile Strength56 MPa8,145 psiTensile Modulus10,763 MPa1,561,000 psiTensile Elongation0.7 %Flexural Strength84.6 MPa12,272 psiFlexural Modulus8,513 MPa1,235,000 psiCompressive Strength166 MPa24,139 psiHeat Resistance155 °C310 °FDeflection Temperature1.82MPa186 °C186 °C367 °F	_
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Post Shrinkage72hr 120°C0.96 %Izod Impact Notched19.3 J/m0.36 ft·lb/inCharpy Impact Notched21.5 J/m0.40 ft·lb/inDrop Ball Impact101 J/m1.9 ft·lb/inTensile Strength56 MPa8,145 psiTensile Modulus10,763 MPa1,561,000 psiTensile Elongation0.7 %Flexural Strength84.6 MPa12,272 psiFlexural Modulus8,513 MPa1,235,000 psiCompressive Strength166 MPa24,139 psiHeat Resistance155 °C310 °FDeflection Temperature1.82MPa186 °C	D792
Izod Impact Notched19.3 J/m0.36 ft·lb/inCharpy Impact Notched21.5 J/m0.40 ft·lb/inDrop Ball Impact101 J/m1.9 ft·lb/inTensile Strength56 MPa8,145 psiTensile Modulus10,763 MPa1,561,000 psiTensile Elongation0.7 %7Flexural Strength84.6 MPa12,272 psiFlexural Modulus8,513 MPa1,235,000 psiCompressive Strength166 MPa24,139 psiHeat Resistance155 °C310 °FDeflection Temperature1.82MPa186 °C186 °C367 °F	D6289
Charpy Impact Notched21.5 J/m0.40 ft·lb/inDrop Ball Impact101 J/m1.9 ft·lb/inTensile Strength56 MPa8,145 psiTensile Modulus10,763 MPa1,561,000 psiTensile Elongation0.7 %Flexural Strength84.6 MPa12,272 psiFlexural Modulus8,513 MPa1,235,000 psiCompressive Strength166 MPa24,139 psiHeat Resistance155 °C310 °FDeflection Temperature1.82MPa186 °C367 °F	D6289
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Tensile Strength56MPa8,145psiTensile Modulus10,763MPa1,561,000psiTensile Elongation0.7%Flexural Strength84.6MPa12,272psiFlexural Modulus8,513MPa1,235,000psiCompressive Strength166MPa24,139psiHeat Resistance155°C310°FDeflection Temperature1.82MPa186°C367°F	D256
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Flexural Strength84.6MPa12,272psiFlexural Modulus8,513MPa1,235,000psiCompressive Strength166MPa24,139psiHeat Resistance155°C310°FDeflection Temperature1.82MPa186°C367°F	D638
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Compressive Strength166MPa24,139psiHeat Resistance155°C310°FDeflection Temperature1.82MPa186°C367°F	D790
Heat Resistance155°C310°FDeflection Temperature1.82MPa186°C367°F	D790
Deflection Temperature 1.82MPa 186 °C 367 °F	D695
	D794
Weter Absorption $0.42.0$	D648
Water Absorption 0.43 %	D570
Rockwell Hardness 76 E scale	D785
Dielectric Strength short time7.7 kV/mm197 V/mil	D149
Dissipation Factor, 1MHz 0.073	D150
Permittivity, 1MHz 7.3	D150
Volume Resistivity 1.5E+12 ohm·cm 6.1E+11 ohm·in	D257
ASTM Arc Resistance 186 sec	D495
Comparative Tracking Index 498 V	D3638
UL Flammability V-0 @1.5mm	UL 94
Oxygen Index 32.6 %	D2863
Coefficient of Thermal Expansion 6.5E-05 /°C 3.6E-05 /°F	E831
Thermal Conductivity 100°C0.56 W/m/°C0.32 Btu/hr/ft/°F	E1461

Limited Shelf-Life. Actual shelf-life obtained is dependent on storage conditions, molding process, and mold design. Store in cool dry place. The Typical Values listed are results obtained from the testing of standard specimens using the stated test procedures, with said specimens molded under controlled laboratory conditions from representative samplings of the product. Although Plastics Engineering Company at all times reserves the right to make changes in the materials, suppliers and processing, the values listed as typical are those to be expected at the time of our manufacture. The final determination of the accuracy or completeness of any information, the suitability of the used contemplated, the manner of its use, and the matter of any infringement of patents in use, are all the sole responsibility of the user. PLASTICS ENGINEERING COMPANY MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THIS PRODUCT, INCLUDING NO WARRANTY OF THE MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. Plastics Engineering Company reserves at all times the right to discontinue the products on all of its products. This is an uncontrolled copy and not subject to updates. *Mold Shrinkage obtained under controlled laboratory conditions with relatively simple mold geometry and should be used for company purposes only and not for actual tool design. ver 080624