

BMC HT12

Bulk Molding Compound

PRODUCT DESCRIPTION

Glass fiber reinforced Polyester/ BMC suitable for replacements for die castings, sheet molding compounds, and Phenolic materials in highly aggressive environments in the aerospace, automotive and oil & gas industries.

GENERAL

Material Status	• Commercial: Active		
Availability	• North America • Asia Pacific	• Europe • South America	
Filler/Reinforcement	• Glass Fiber and mineral filler		
Features	• Good oil and solvent resistance • Good chemical resistance • High compressive strength		
Processing Method	• This BMC product is generally intended to be compression, transfer, or injection molded in matched metal die molds, typically at 300°F (150°C) and 500 to 1,000 psi (35-65 BAR) molding pressure. Strength values may be affected by the molding process.		
Resin	• Unsaturated Polyester Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.95-2.00	g/cm ³	ASTM D792
Mold Shrinkage (RT mold/RT part)	0.001-0.002	in/in	ASTM D955
Hardness, Barcol	70-80	Barcol Units	ASTM D2583
Poisson's Ratio	0.36		ASTM D638

MECHANICAL (As molded)	Typical	Unit	Test Method
Tensile Modulus	1.8-2.0 x 10 ⁶ (12.4-13.8)	psi (GPa)	ASTM D638
Tensile Strength	10,000-12,000 (65-80)	psi (MPa)	ASTM D638
Tensile Elongation at Break	0.8-1.2	%	ASTM D638
Flexural Modulus (RT)	2.9-3.1 x 10 ⁶ (20-21.3)	psi (GPa)	ASTM D790
Flexural Strength	19,000-23,000 (130-155)	psi (MPa)	ASTM D790
Compressive Strength	30,000 (205)	psi (MPa)	ASTM D695

BMC HT12

Bulk Molding Compound

IMPACT	Typical	Unit	Test Method
Izod Notched Impact Strength	6.0-8.0 (320-425)	ft-lb/in (J/m)	ASTM D256
THERMAL	Typical	Unit	Test Method
Heat Deflection Temperature	425-500 (218-26)	°F (°C)	ASTM D648
Glass Transition T_g	400-420 (205-215)	°F (°C)	ASTM D4065
Thermal Conductivity, 25°C	0.58	W/m-°K	ASTM E1461
Specific Heat Capacity	750	J/kg-°K	ASTM E1461

For additional information, please contact:

A. Schulman Inc., Engineered Composites
1600 Powis Ct, West Chicago, IL 60185
p: 630-377-1065
f: 630-377-7395
www.aschulman.com

Page 2 of 2

Revision Date: April 25, 2016

The information and recommendations contained in this document are based upon data collected by A. Schulman and are believed to be reliable; however, because A. Schulman cannot anticipate or control the many different conditions under which this information and/or product may be used, no representation is made and no warranty is given of any kind, express or implied, for completeness, accuracy, availability, suitability, usefulness, commercial value, or non-violation of intellectual property rights of information, recommendation, and products and services directly or indirectly provided. A. Schulman assumes no responsibility for the results of the use of products and processes described herein and expressly disclaims the implied warranties of merchantability and fitness for a particular use.