NEOCRUMB, LLC

PolyCrumb® Composite C03XB-A01, D03XB-A01, E03XB-A01 Technical Data Sheet

a NeoCrumb LLC product

Key Characteristics

PolyCrumb Composites C03XB-A01, D03XB-A01, and E03XB-A01 are designed primarily for injection molding applications. C03XB-A01, D03XB-A01, and E03XB-A01 offer an excellent balance of properties where the requirements are for a soft and flexible polymer with a very high Notched Izod performance. See table below for typical properties.

C03XB-A01, D03XB-A01, and E03XB-A01 are composite materials from tire derived crumb rubber and a Polyethylene copolymer. PolyCrumb meets the requirements as a thermoplastic Elastomer because of the molecular bond that is achieved without the introduction of bonding agents, accelerants or catalysts. PolyCrumb C03XB-A01, D03XB-A01, and E03XB-A01 are recyclable and compounded from 100% recycled material. The tire derived crumb rubber within PolyCrumb is not simply a filler, but rather enhances many of the mechanical properties of the polymer with which it is bonded, thus enabling it to match the characteristics of more expensive polymers.

PHYSICAL	ASTM	UNITS	C03XB-A01	D03XB-A01	E03XB-A01
Melt Flow Rate	D1238	g/10 min	6.45	5.60	4.00
Density	D792	g/cc	1.0274	1.0369	1.0517
MECHANICAL					
Tensile Strength	D638	psi	2214	1861	1568
Yield Elongation	D638	%	18.54	23.36	27.53
Break Strength	D638	psi	1278	1567	1253
Break Elongation	D638	%	46	43	48
Flex Modulus	D790	kpsi	67	57	45
Flex Strength	D790	psi	2009	1708	1374
IMPACT					
Notched Izod	D256	ft-lb/in	3.06	4.28	4.65
Hardness, Shore D	D2240		56.6	53.4	48.6

Applications

The types of products that have been made from various PolyCrumb products include automotive components, building materials, and durable goods.

C03XB-A01, D03XB-A01, and E03XB-A01 are suited for flexible applications that usually require a more expensive Thermoplastic Elastomer.

Processing Information

All PolyCrumb products should be molded at lower temperatures than conventional polymers (approximately 75°F/23.9°C to 100°F/37.8°C); which provides energy savings, decreases cooling time, and therefore reduces cycle times.

PolyCrumb products exhibit less shrinkage than conventional polymers, resulting in reduced trimming time, which also decreases the cycle time. In addition, PolyCrumb does not need pre-treatment for painting and coating.