



NORTH SHORE RUBBER

Technical Data Sheet TDP-C Tire-Derived Polymer Product Code 0496

TDP-C (Tire-Derived Polymer) is a 100% re-engineered rubber masterbatch compound made from whole passenger tires. It is a versatile, functional material that offers significantly higher performance to differentiate it from fillers such as crumb rubber, micronized rubber powder, or reclaimed rubber.

TDP-C is intended to be used as a polymer replacement, and can be used to displace virgin rubber, SBR, EPDM, prime or recycled grade polypropylene (PP), high-density polyethylene (HDPE) and nylons.

TDP-C is used in the automotive, industrial, construction and consumer products markets.

Application Examples	Typical Loading
New Tires: Tread & Sidewall	15-20%
Retreaded Tires: Truck & OTR	15-30%
Conveyor Belts & Material Handling	20-45%
Molding Applications	
Automotive Parts	20-50%
Shoe Soles	30-70%

Loading levels vary depending on quality requirements and specifications.

Typical Properties:

Properties can be optimized per individual requirements and applications.

Property	ASTM	Typical Value	Range
Mooney Viscosity (1+4 @ 212F)	D1646	60	+/- 15
Hardness, Shore A	D2240	65	+/- 5
Density, g/cm3	D297	1.18	+/- 0.05
Physical Properties	D412, 20"/min		
Tensile, psi (MPa)		870 (6)	+/- 210
Elongation at break, %		125	+/- 25

No solvents or chemicals are used in the process of making TDP-C.

Cure:

Typical values are shown produced from IS6306-1971 standard cure package.

Ingredients	Grams
Tire-Derived Polymer (TDP-B)	200
Zinc Oxide	5.0
Stearic Acid	2.0
Sulfur	3.0
2-Mercaptobenzothiazole (MBT)	0.5
Diphenyl guanidine (DPG)	0.2

Composition:

The composition of TDP-C will mirror that of the feedstock used to create it. The typical North American passenger tire composition is shown below.

Ingredient	%	Range
Natural Rubber (NR)	29	+/- 4
Synthetic Rubber (SBR)	25	+/- 4
Total Polymer Content	54	+/- 4
Carbon Black	28	+/- 3
Ash	7	+/- 2
Acetone Extract	8	+/- 2

Questions? Contact info@northshorerubber.com

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