

ELASTOCYL™

CNT elastomers concentrates

ELASTOCYL™ X1-IR MB

IR – Carbon nanotubes masterbatches

General Information

Description

ELASTOCYL™ X1-rubber is a development product range that demonstrates the performance of carbon nanotubes (CNT) dispersion in elastomers. Optimal CNT dispersion provides customers the benefits and performance improvements offered by this new class of additives. CNT are frequently used in synergy with other commonly used fillers. This minimizes reformulations and accelerates product innovation.

ELASTOCYL™ X1-IR MB is high performance **polyisoprene polymer masterbatch loaded with 20 wt.% of Nanocyl's MWCNTs (NC7000™)**.

Key Applications

- ESD (Electrostatic Discharge) and electrically conductive parts
- Automotive, Railway, Industrials, Energy

Benefits

- Excellent electrical conductivity at low loading
- Excellent surface finish
- Retention of key mechanical properties
- Ease of processing

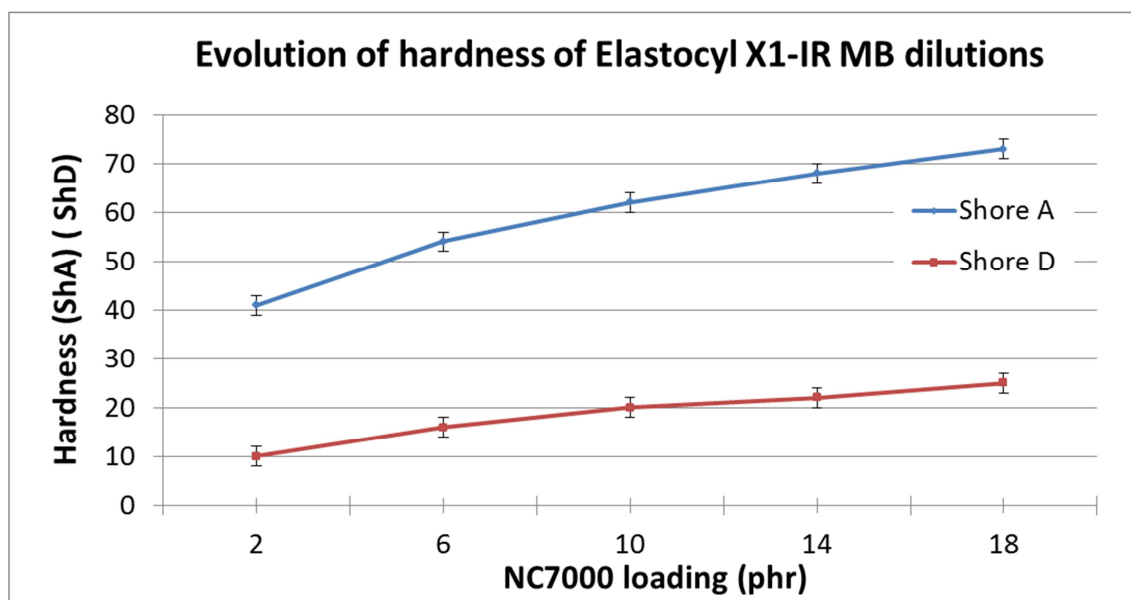
Technical Data

Main characteristics

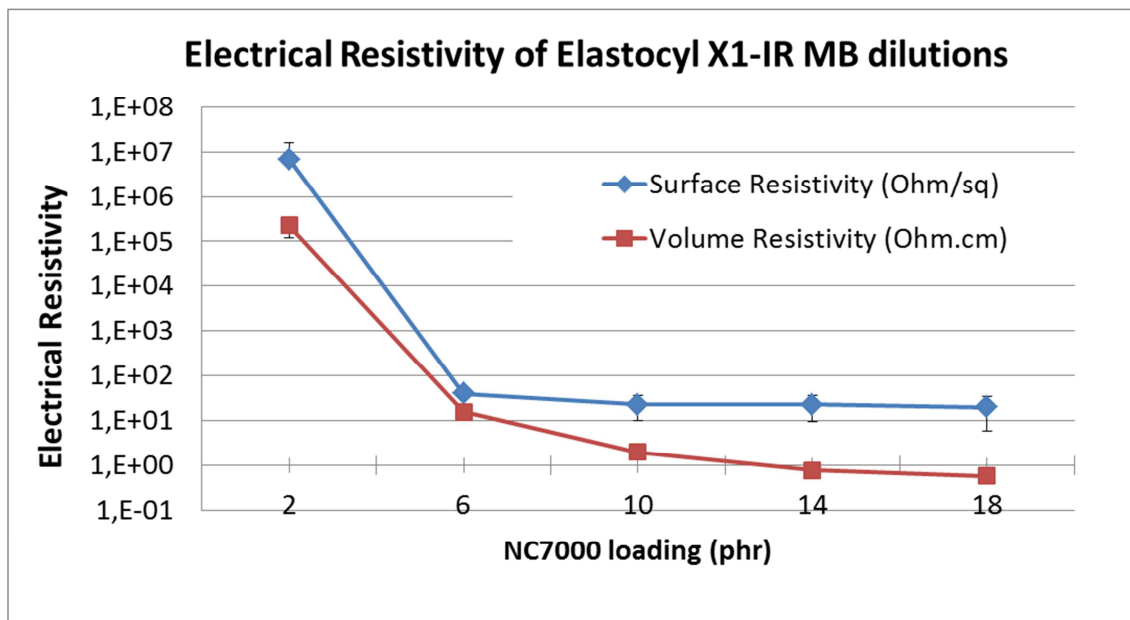
The following table shows the main characteristics of the masterbatch **raw material base gum**:

Cis 1-4 Content	Mooney Viscosity (ML 1+10, 100°C)	Specific gravity
98 %	70-90	0.91

Evolution of the Hardness with the dilution of this masterbatch



Percolation Curves for Electrical Volume and Surface Resistivity



Electrical resistivity measurement in accordance with Nanocyl standard method.

General Processing Guidelines

ELASTOCYL™ X1-IR MB could be blended with equipment used for rubber.

ELASTOCYL™ X1-IR MB could be considered as another component to achieve a new IR formulation.

Dilution ratio will depend on the targeted mechanical and electrical properties. Do not hesitate to contact us.

Commercial/Safety Information

Packaging

ELASTOCYL™ X1-IR MB is available in milled sheets 3-10 mm thickness in different packaging:

- Cardboard/carton box, 5 kg
- Cardboard/carton box, 10 kg

Minimum Order Quantity

Nanocyl's minimum order quantity for ELASTOCYL™ X1-IR MB is 1 kg.

Custom Grades

Besides the commercial grades, Nanocyl is able to toll-compound any type of IR masterbatches at any NC7000 loading to meet its clients' specifications.

Health and Safety

A Material Safety Data Sheets (MSDS) is available to provide both workers and emergency personnel with the proper procedures for handling or working with the ELASTOCYL™ X1-IR MB. This MSDS includes information such as physical data (form and color, melting point, etc.), handling and storage recommendations, first aid measures and ecological information. The Safety Data Sheet is provided with any order and should be observed.

Disclaimer

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