



TT 107M

TT 107M Black is a novel carbon black grafting catalyst masterbatch designed for use in a modified Monosil moisture cure process

Description

TT107M black masterbatch contains grafting initiators, catalyst and novel ambient cure technology for use in modified Monosil cable extrusion.

TT 107M provides effective long term UV weather resistance.

Application

A 6.5% concentration of the **TT 107M** blended with 92.5% LLDPE commodity resin and 1% vinyl trimethoxy silane when extruded with good cable making practices will make cable that will meet the requirements of UL 44 Underground Service Entrance, Service Entrance and Switchboard Wiring Applications (SIS).

Specifications

Cables manufactured using TT 107M and commodity LLDPE resin in accordance with standard industry practices should meet the following industry cable specifications:

- Underwriters Laboratories Standard 44 USE, SE
- Underwriters Laboratories Standard 44 SIS

Physical Properties ⁽⁴⁾	Typical Value ⁽²⁾	Unit	Test Method ⁽¹⁾
Density ⁽⁵⁾	1.28	g / cm ³	ASTM D 1505
Tensile Strength	2800	psi	ASTM D 638
Ultimate Elongation	350	%	ASTM D 638
Heat Aging, 7 days at 121°C			UL 1581
Tensile Strength Retention	>90	%	ASTM D 638
Ultimate Elongation Retention	>90	%	ASTM D 638
Hot Creep 29 psi 150°C ⁽³⁾	75	%	UL 44

- (1) Tested in accordance with the latest issue of the designated Test Methods.
 (2) Data represents typical values and should not be used for specification work.
 (3) 80 mil wall after 21 days in ambient warehouse conditions
 (4) Cable properties after blending and extrusion
 (5) Compound property

General Processing Guidelines

Filled systems are inherently hygroscopic and will, over a period of time, absorb moisture. While the packaging for the **TT 107M** is designed to reduce moisture pick up, drying for 4 to 6 hours at 140-160F is recommended for the best results.

Extrusion Temperatures

°F	
Z1	300
Z2	320
Z3	340
Z4	380
Z5	400
Head	385
Clamp	385
Flange	390
Adapter 1	400
Adapter 2	400
Melt	440

Screw: L/D 24:1

Compression Ratio 3:1

Type: Single flight with Maddock Mixing Head

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