

# Rubber EPDM

## Application Note

### Introduction:

Interfibe was evaluated in an EPDM rubber formulation to determine if chemical bonding took place. A fiber-filled compound showed considerably less swelling after aging in ASTM #3 reference oil than the control without fibers. The elongation in the fibered compound after aging also compared favorable to the non-aged sample. This provides evidence that the fiber to matrix bonding mechanism is both mechanical and chemical.

Interfibe FT, used in combination with a resorcinol formaldehyde / methylene donor system, contributes internal dimensional strength to the rubber matrix.

### Objectives:

Formulators are continuously striving to reduce the cost while maintaining product strength and dimensional properties.

### Solution:

Interfibe FT, in combination with an internal bonding system, reduces cost, maintains physical properties and gives a smoother appearance to the extruded product.

***interfibe***<sup>TM</sup>

*For further information, call  
your local distributor or  
Interfibe Corporation.*

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### BASE EPDM FORMULATION

Ingredient	Parts/100 Rubber (PHR)
EPSYN 5508	100.00
GPFN-650	100.00
SRF-N-774	80.00
Zinc Oxide	5.00
Stearic Acid	1.00
Circosol 4240	35.00
Sunpar 2280	80.00
Sulfur	1.70
T.M.T.M.	1.80
Ethyl Cadamante	.90
M.B.T.S.	.60
<b>TOTAL MASTERBATCH</b>	<b>406.00</b>

### EPDM AUTOMOTIVE HOSE FORMULATION USING INTERFIBE FT

#### FORMULA WITH INTERFIBE FT

Master batch	406
Interfibe FT	54
Bonding Agent	2
Resimene 3520	1.25

### PHYSICAL PROPERTIES

Duro 'A'	83
Tensile strength PSI	1147
Elongation %	40

### COMMENTS

Interfibe has been production evaluated in a Banbury mixer and extruded through the Monsanto orie Interfibe FT with bonding agents is comparable to the currently used Santoweb H, and offers like pr in a hose type product. Use of Interfibe FT reduces compound cost and provides for a much improv finish of the end product.

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