Tecnoflon®
FOR 50 HS

Cure incorporated copolymer

Solvay
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Tecnoflon® FOR 50 HS

GENERAL FEATURES

TECNOFLON® FOR 50 HS is a low viscosity cure incorporated copolymer, based on our breakthrough technology on bisphenol curable fluoroelastomers. Tecnoflon® FOR 50 HS can be compounded to meet all the major fluoroelastomer specifications with only a 1 hour post cure and without using Calcium Hydroxide. Tecnoflon® FOR 50 HS is well suited for all applications requiring superior flow, mould release, and excellent compression set.

Some of the unique properties of **TECNOFLON® FOR 50 HS** are:

- Low post cure time of 1 hour
- Lower post cure temperatures
- Curable without Calcium Hydroxide
- Excellent mould release
- Lack of mould fouling
- Lower compound viscosity
- Good scorch safety
- Fast cure rate

TECNOFLON® FOR 50 HS can be used for injection and transfer moulding of O-rings, gaskets and seals. The material can be extruded into hoses or profiles and can be calendered to make sheet stocks or belting. The product can be mixed using typical fluoroelastomers compounding ingredients and mixing can be accomplished with two-roll mills or internal mixers. Finished goods can be produced by a variety of rubber processing methods.

Basic characteristics of the raw polymer are as follows:

PROPERTIES	TYPICAL VALUES
ML (1+10') @ 121°C	23
Fluorine content (%)	66
Specific gravity (g/cc)	1.81
Colour	Off white
Packaging / Form	Slabs
Solubility	Ketones and esters

HANDLING AND SAFETY

Normal care and precautions should be taken to avoid skin contact, eye contact and breathing of fumes. Smoking is prohibited in working areas. Wash hands before eating or smoking. For complete health and safety information, please refer to the material safety data sheet.

TYPICAL RHEOLOGICAL PROPERTIES

CURABLE WITHOUT CALCIUM HYDROXIDE

TEST COMPOUND		
Tecnoflon® FOR 50 HS		100
MgO DE	phr	7
N-990 MT Carbon Black	phr	30

Mooney Viscosity ML (1+10') @ 121°C	MU	47

Mooney Scorch MS 135°C		
MV	MU	21
t_{15}	min	78

MDR 6 min @ 177°C arc 0.5		
Minimum Torque	lb*in	0.95
Maximum Torque	lb*in	16.0
t_{s2}	min	1.8
t'_{50}	min	2.3
t'_{90}	min	3.2

MDR 18 min @ 170°C arc 0.5		
Minimum Torque	lb*in	1.05
Maximum Torque	lb*in	16.6
t_{s2}	min	3.1
t'_{50}	min	4.2
t'_{90}	min	6.2

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TYPICAL PHYSICAL PROPERTIES

CURABLE WITHOUT CALCIUM HYDROXIDE

TEST COMPOUND		
Tecnoflon® FOR 50 HS		100
MgO DE	phr	7
N-990 MT Carbon Black	phr	30

MECHANICAL PROPERTIES		
After press cure		
100 % Modulus	MPa	4.5
Tensile Strength	MPa	12.1
Elongation at Break	%	250
Hardness	ShoreA	70
Post Cure: 1 h @ 250°C		
100 % Modulus	MPa	5.4
Tensile Strength	MPa	17.9
Elongation at Break	%	227
Hardness	ShoreA	70
Post Cure: 4 h @ 250°C		
100 % Modulus	MPa	5.4
Tensile Strength	MPa	18.2
Elongation at Break	%	219
Hardness	ShoreA	70
Post Cure: (8+16) h @ 250°C		
100 % Modulus	MPa	5.5
Tensile Strength	MPa	18.6
Elongation at Break	%	203
Hardness	ShoreA	70

COMPRESSION SET (ASTM D395 Method B) (25 % Deformation on #214 O-Rings, 70 h @ 200 °C)		
After press cure	%	34
Post cure 1 h @ 250°C	%	17
Post cure 4 h @ 250°C	%	15
Post cure (8+16) h @ 250°C	%	15

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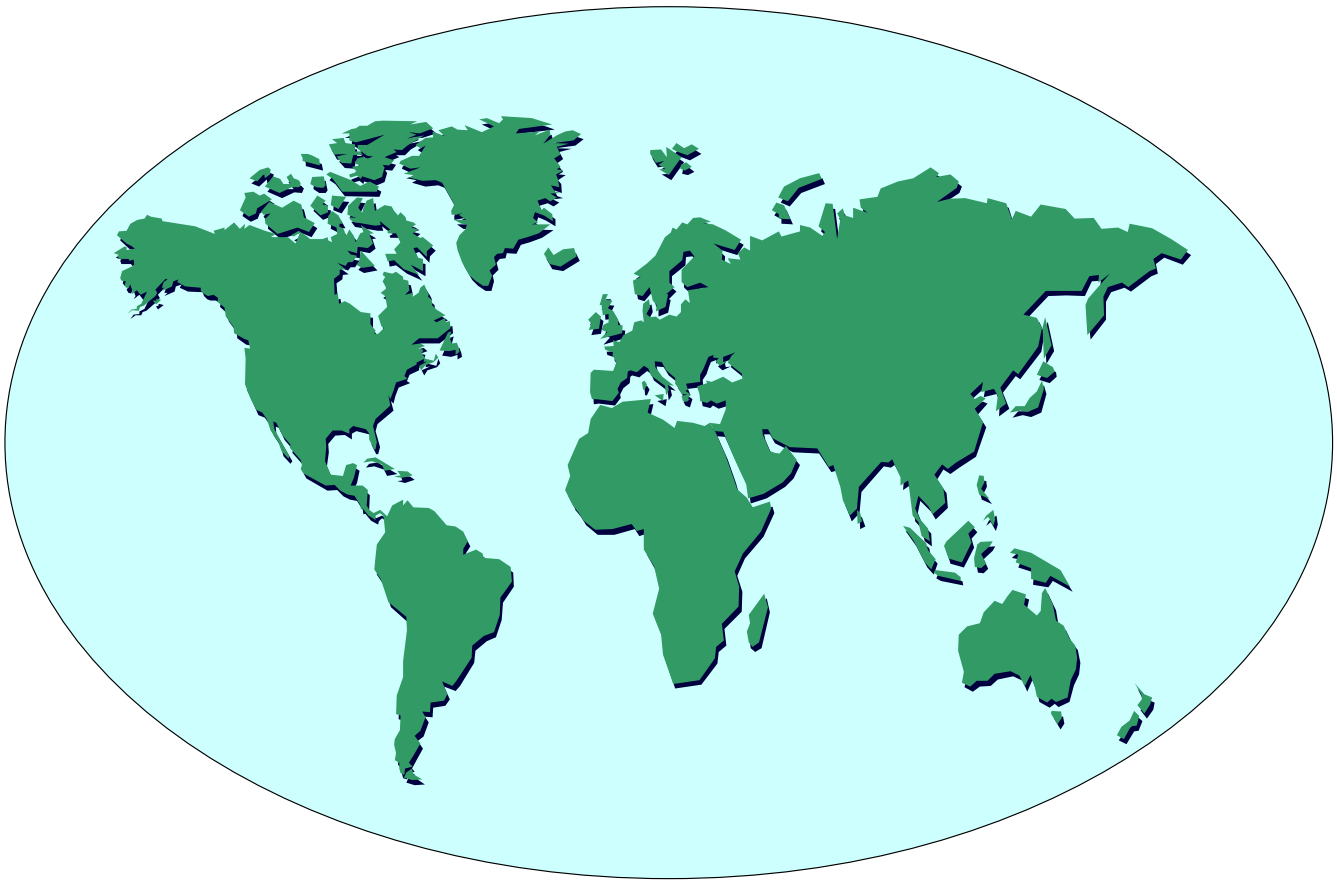

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