Tecnoflon®
FOR 801HS

Cure incorporated copolymer

Solvay
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Tecnoflon® FOR 801HS

GENERAL FEATURES

TECNOFLON® FOR 801HS is a medium-low viscosity cure incorporated copolymer, based on our breakthrough technology on bisphenol curable fluoroelastomers. Tecnoflon® FOR 801HS can be compounded to meet all the major fluoroelastomer specifications with only a 1 hour post cure and without using Calcium Hydroxide. Tecnoflon® FOR 801HS is well suited for moulded items with complicated shapes which require a very good hot tear resistance for part removal.

Some of the unique properties of Tecnoflon® FOR 801HS 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 801HS 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	40
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 WITH & WITHOUT CALCIUM HYDROXIDE

TEST COMPOUND			
Tecnoflon® FOR 801 HS		100	100
MgO-DE	phr	7	3
$Ca(OH)_2$	phr	-	6
N-990 MT Carbon Black	phr	30	30
Mooney Viscosity ML (1+10) @ 121°C	MU	75	73
Mooney Scorch MS 135°C			
MV	MU	33	33
t_{15}	min	43	38
MDR 12 min @ 177°C arc 0,5°			
Minimum Torque	lb*in	1.8	1.7
Maximum Torque	lb*in	12.9	14.5
t_{s2}	min	1.8	1.2
t'_{50}	min	2.7	1.4
t'_{90}	min	4.3	2.0

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TYPICAL PHYSICAL PROPERTIES

CURABLE WITH & WITHOUT CALCIUM HYDROXIDE

TEST COMPOUND				
Tecnoflon® FOR 801 HS			100	100
MgO-DE		phr	7	3
$Ca(OH)_2$		phr	-	6
N-990 MT Carbon Black		phr	30	30
MECHANICAL PROPERTIES				
Press cure:	**10 min @ 170°C**			
100 % Modulus		MPa	2.9	3.2
Tensile Strength		MPa	12.4	10.6
Elongation at Break		%	385	322
Hardness		ShoreA	66	67
Post Cure:	**1 h @ 250°C**			
100 % Modulus		MPa	3.5	3.8
Tensile Strength		MPa	17.5	16.2
Elongation at Break		%	261	271
Hardness		ShoreA	65	68
Post Cure:	**(8+16) h @ 250°C**			
100 % Modulus		MPa	3.5	3.9
Tensile Strength		MPa	17.3	15.6
Elongation at Break		%	273	250
Hardness		ShoreA	66	67
HEAT AGING (ASTM D573, 70 h @ 275°C)				
Δ Tensile Strength		%	-41	-35
Δ Elongation at Break		%	+55	+22
Δ Hardness		ShoreA	-3	-3
Δ Weight		%	-2.7	-3.3

COMPRESSION SET (25 % Deformation, ASTM D395 Method B, 70 h @ 200 °C)				
Press cure:	10 min @ 170°C			
Post cure:	1 h @ 250°C			
#214 O-Ring		%	17	20

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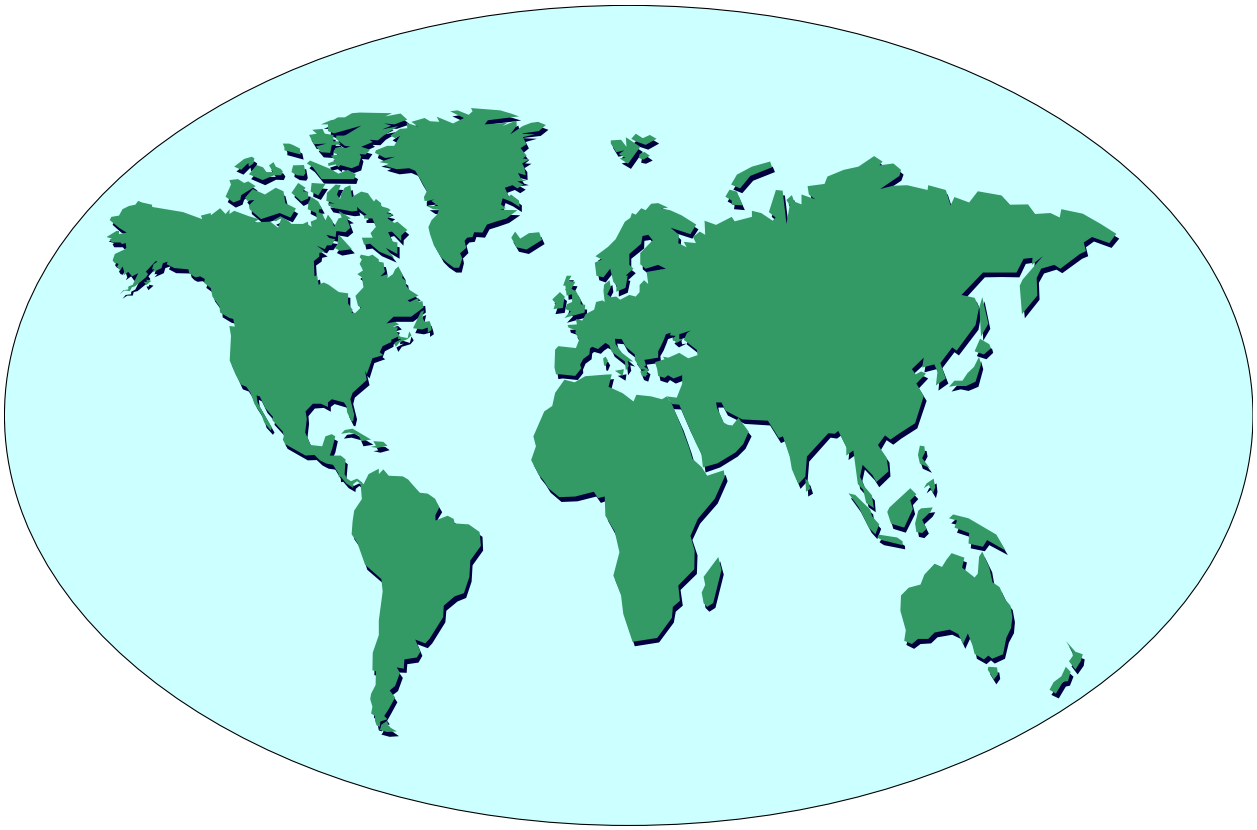

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