

Tecnoflon® N 215/U

Raw Copolymer

Tecnoflon® N 215/U is a very low viscosity fluoroelastomer copolymer. Tecnoflon® N 215/U is intended for blending with other polymers of the Tecnoflon® family to achieve the desired viscosity. It is also intended for high concentration solution applications, such as dip coated items, fabric coatings and spray coating. Tecnoflon® N 215/U can be mixed in the same way as all the other Tecnoflon® grades and can be used in any application requiring either very low compound viscosity or “low viscosity”, highly loaded high hardness compounds. Tecnoflon® N 215/U does not contain curatives: therefore the proper levels of Tecnoflon® FOR M1 and Tecnoflon® FOR M2 must be added to achieve the required properties. It can be also cured with diamine based systems.

Some of the unique properties of Tecnoflon® N 215/U are:

Solution applications

- Excellent pot life
- Very low Brookfield viscosity
- Excellent adhesion to substrates

Dry applications

- Superior mould flow
- Low compound viscosity
- Good compression set

Tecnoflon® N 215/U can be mixed using typical fluoroelastomers compounding ingredients and mixing can be accomplished with two roll mills or internal mixers.

Compounds based on Tecnoflon® N 215/U can be dispersed in solvents for coating applications. Finished goods can be produced by a variety of rubber processing methods.

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.

Basic characteristics of the raw polymer are as follows

Property	Typical Value	Unit	Test Method
ML (1+10') at 121 °C	10	MU	ASTM D1646
Fluorine content	66	%	Solvay Internal Method – NMR
Specific gravity	1.81	g/cm ³	ASTM D792
Colour	Translucent		
Packaging / Form	Slabs		
Solubility	Ketones and esters		

Typical properties

Test Compound	Typical Value	Unit	Test Method
Tecnoflon® N 215/U	100	phr	
Tecnoflon® FOR M1	4	phr	
Tecnoflon® FOR M2	1.5	phr	
MgO–DE	3	phr	
Ca(OH) ₂	6	phr	
N-990 MT Carbon Black	30	phr	

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Property	Typical Value	Unit	Test Method
Mooney viscosity ML (1+10') at 121 °C	26	MU	ASTM D1646
Mooney Scorch MS 135 °C			ASTM D1646
MV	11	MU	
t ₁₅	31.4	min	
MDR 6 min at 177 °C arc 0.5 °			ASTM D6601
Minimum torque	0.21	lb·in	
Maximum torque	16.8	lb·in	
t _{s2}	1.7	min	
t' ₅₀	2.0	min	
t' ₉₀	3.2	min	
Press cure: 10 min at 170 °C, post cure: (8+16) h at 250 °C			
100 % Modulus	6.4	MPa	ASTM D412C
Tensile strength	14.3	MPa	
Elongation at break	189	%	
Hardness	73	ShoreA	ASTM D2240
Compression set			ASTM D395 method B
25 % deformation, 70 h at 200 °C			
O-ring #214	20	%	
6 mm buttons	16	%	

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