

QUALIFICATION TEST REPORT

PRODUCT : TFE-R

SPECIFICATION : RW 2054 Revision 1

REPORT NO : 01/027

DATE : June 2001

Comments : All test results meet or exceed the requirements of the above specification(s)

TEST	REQUIREMENT	RESULTS		
		Size : 1/2	Size : 1	Size : 2
Dimensions:				
Supplied Inside Diameter	12.7 mm minimum 25.4mm minimum 50.8 mm minimum	14.6 - -	- 26.3 -	- - 52.3
Recovered Inside Diameter	3.66 mm maximum 7.06 mm maximum 13.21 mm maximum	3.60 - -	- 6.80 -	- - 13.17
Recovered Wall Thickness	0.38 ± 0.10 mm 0.51 ± 0.13	0.40 -0.42 -	0.38 – 0.45 -	- 0.45 – 0.51
Supplied Concentricity	60% minimum	81 - 90	66 - 83	62 – 79
Longitudinal Change	± 20%	-10 / -15	+5 / +9	-9 / -11
Tensile Strength	21 MPa minimum	34.9	40.8	42.2
Ultimate Elongation	200% minimum	270	242	295
Specific Gravity	2.5 maximum	2.15	2.14	2.17
Heat Shock (4 hrs at 400°C)	No dripping, cracking or flowing	Pass	Pass	Pass
Heat Ageing (168 hrs at 350°C)	No dripping, cracking or flowing	Pass	Pass	Pass
Ultimate Elongation	150% minimum	378	500	462
Low Temperature Flexibility (4 hrs at -75°C)	No cracking	-	Pass	Pass
Flammability	Duration of burn 15 secs maximum	Pass	Pass	Pass

TEST	REQUIREMENT	RESULTS		
		Size : 1/2	Size : 1	Size : 2
Dielectric Strength	27.5 MV/m minimum	52.5	56.0	40.0
Copper Mirror Corrosion (16 hrs at 175°C)	No corrosion of mirrors	Pass	Pass	Pass
Copper Contact Corrosion (168 hrs at 175°C)	No corrosion of mandrel	-	-	Pass
Ultimate Elongation	150 % minimum	-	-	258
Water Absorption (24 hrs immersion at 23°C)	0.1% maximum	0.071	0.020	0.019
Fungus Resistance	No Fungal Growth	Pass 0	-	-

Fluid Resistance

Fluid Description	Fluid Temp °C	Immersion Time	Test	Requirement	Results	
					Size : 1/2	Size : 2
Gasoline Fuel to ISO 1817 Test liquid B	23 ± 2	24 hours	Tensile Strength	21 MPa min	32.8	42.6
			Ultimate Elongation	200 % min	262	290
Hydraulic fluid to H-515	23 ± 2	24 hours	Tensile Strength	21 MPa min	32.0	39.4
			Ultimate Elongation	200 % min	260	312
Lubricating Oil to O-149	23 ± 2	24 hours	Tensile Strength	21 MPa min	33.7	41.5
			Ultimate Elongation	200 % min	272	286

Product / Process Information			
Product Description :	TFE-R-1/2-X	TFE-R-1-X	TFE-R-2-X
Extrusion Batch :	284070	284068	283902