

Cross Reference	
ATUM	Raychem/Tyco
CPA	DSG-Canusa



UPTWFR-A

UNION POLYMER THIN WALL FLAME RETARDANT POLYOLEFIN - ADHESIVE LINED



Heat shrink ratio 3:1 & 4:1

Meets MIL-DTL-23053/4 standards

Flame retardant meets UL-224 standards

FEATURES AND APPLICATIONS

- Thin wall radiation cross-linked polyolefin is ideal for environmental sealing in a wide variety of applications
- Adhesive liner provides complete sealing against water, moisture or other contaminants
- High shrink ratio makes it convenient to apply where there are large diameter differences
- Standard color: Black; Other colors are available on request
- Operating temperature: -40°C to 135°C; Shrink temperature: 125°C

DIMENSIONS

Product Order Number	Internal Diameter As Supplied		Internal Diameter Recovered		Wall Thickness (Nominal) Recovered	
	inch	mm	inch	mm	inch	mm
Heat Shrink Ratio 3:1						
0125	1/8	3.2	0.040	1.0	0.039	1.0
0187	3/16	4.8	0.060	1.6	0.039	1.0
0250	1/4	6.4	0.080	2.0	0.039	1.0
0312	5/16	7.9	0.100	2.5	0.055	1.4
0375	3/8	9.5	0.125	3.2	0.055	1.4
0500	1/2	12.7	0.160	4.1	0.066	1.7
0750	3/4	19.1	0.250	6.4	0.070	1.8
1000	1	25.4	0.320	8.1	0.086	2.2
1250	1 1/4	31.8	0.416	10.6	0.097	2.5
1500	1 1/2	40.0	0.510	13.0	0.097	2.5
Heat Shrink Ratio 4:1						
4/1	0.156	4.0	0.039	1.0	0.039	1.0
6.0/1.5	0.234	6.0	0.058	1.5	0.039	1.0
8/2	0.312	8.0	0.078	2.0	0.039	1.0
12/3	0.468	12.0	0.117	3.0	0.055	1.4
16/4	0.624	16.0	0.156	4.0	0.066	1.7
24/6	0.936	24.0	0.234	6.0	0.085	2.2
32/8	1.248	32.0	0.312	8.0	0.097	2.5

Standard package: 300FT on a spool or 4 FT stick. Customized packages are available on request.

TECHNICAL DATA

	Property	Test Method	Values	
Physical	Tensile strength	When test at 500 mm/min.	≥ 12MPa	
	Breakdown elongation	When test at 500 mm/min.	≥ 300%	
	Dielectric breakdown voltage	—	≥ AC 2500V	
	Dielectric voltage withstand	1 min. AC 2500V	No breakdown	
Aging (158°C/168 hrs)	Tensile strength	When test at 500 mm/min.	≥ 10Mpa	
	Breakdown elongation	When test at 500 mm/min.	≥ 200%	
	Density	—	1.15 ~ 1.25	
	Thermal endurance	—	125°C	
	Hardness (Shore D)	—	≤ 40 HD	
	Water absorption (23°C/24hrs)	—	≤ 0.5%	
	Low temperature flexibility (-30°C/1hr)	—	No cracking	
	Peel strength to steel	ASTM D2671	80N/25mm	
	Peel strength to XLPE	ASTM D2671	110N/25mm	
	Heat shock (250°C/4 hrs)	—	No cracking/drop/flow (outer layer only)	
Electrical	Volume resistivity	ASTM D2671	≥ 10 ¹⁴ Ω.cm	
	Dielectric strength (2500V AC/60s)	ASTM D2671	≥ 12KV/mm	
	Dielectric breakdown voltage	—	≥ AC 2500V	
	Dielectric voltage withstand	1 min. AC 2500V	No breakdown	
Aging (158°C/168 hrs)	Dielectric breakdown voltage	—	AC 2500V min. and more than 50% of the value obtained with unaged sample	
	Dielectric voltage withstand	1 min. AC2500V	No breakdown	
Chemical	Flammability (outer layer only)	VW-1	Pass	
	Copper corrosion	(158°C/168hrs) 500mm/min	Elongation ≥ 100%	
Fluids resistance (23°C/24hrs)	Diesel fuel (bs2869 class A1)	ISO 37	Tensile strength	≥ 7 MPa
	Hydraulic fluid (H-515)		Breakdown elongation	≥ 300%
	Lubricating oil (O-149)		Peel strength to steel	60N/25mm

ORDERING

Please specify: (1) Product Name (2) Heat shrink ratio (3) Dimension, (4) Color, (5) Quantity, and
(6) Printing options (Standard Union Polymer mark, Customized mark, or Unprinted)

Order Example: UPTWFR-A, heat shrink ratio 3:1, 0187 (3/16”), Black, 30,000 FT, Unprinted

Once a purchase order is received

Order confirmation will be sent from Union Polymer within 12 hours

All in-stock products will be shipped from our Ohio warehouse within 48 hours