

DERAY®-I 3000

High shrink ratio, flexible heat shrink tubing



Features

- Flexible
- High Shrink Ratio
- Flame retardant
- Resistant to common fluids and solvents
- Meets MIL-DTL-23053/5 class 1+2
- Continuous Operating Temperature: -55°C to 135°C
- Shrink Temperature: 90°C



Dimensions

EXPANDED		RECOVERED		DELIVERY UNITS				
INTERNAL DIAMETER (MIN) D		INTERNAL DIAMETER (MAX) D	WALL THICKNESS (NOM) w	Black		Black & Coloured		Lengths 1.22 m
mm	IN	mm	mm	Spool Length	Style*	Spool Length	Style*	
1,6	1/16	0,5	0,45	300	o	150	o	25
3,2	1/8	1,0	0,55	300	o	150	o	25
4,8	3/16	1,5	0,60	300	o	75	o	25
6,4	1/4	2,0	0,65	300	o	75	o	10
9,5	3/8	3,0	0,75	150	o	75	o	10
12,7	1/2	4,0	0,75	100	o	50	-	10
19,0	3/4	6,0	0,85	50	-	30	-	10
25,4	1	8,0	1,00	50	-	30	-	10
39,0	1 1/2	13,0	1,15	50	-	30	-	-

* o = airfilled or oval - = flattened

Technical Data

Physical

Property	Test Method	Typical Performance coloured	Typical Performance clear
Tensile Strength	IEC 60684-2	17 MPa	20 MPa
Elongation	IEC 60684-2	500%	550%
Longitudinal Change	ASTM-D 2671	± 10% max.	± 10% max.
Secant Modulus	ASTM-D 882	175 MPa max.	175 MPa max.
Specific Gravity	ASTM-D 792, A1	1,3 g/cm ³	1,0 g/cm ³
Elongation after Heat Aging (168 hrs at 175°C)	ASTM-D 2671	300%	500%
Tensile Strength after Heat Aging (168 hrs at 175°C)	ASTM-D 2671	13 Mpa	18 Mpa
Elongation after Heat Shock (4 hrs at 250°C)	ASTM-D 2671	No cracking or flowing	No cracking or flowing
Tensile Strength after Heat Shock (4 hrs at 200°C)	IEC 811-1-3	15 MPa	19 MPa
Low Temperature Flexibility	ASTM-D 2671 Meth. C	does not break at -55°C	does not break at -55°C
Flammability	UL 224 (coloured) FMVSS 302 (clear)	flame retardant	passed

Standard Colours					Special Colours - On Request					
black	clear*	red	yellow	blue	white	brown	orange	green	violet	grey

*clear not UL or CSA listed

Electrical

Property	Test Method	Typical Performance coloured	Typical Performance clear
Dielectric Strength	VDE 0303 Part 2	24 kV/mm	24 kV/mm
Volume Resistivity	VDE 0303 Part 3	10 ¹⁶ Ω x cm	10 ¹⁶ Ω x cm

Chemical

Property	Test Method	Typical Performance coloured	Typical Performance clear
Corrosive Action	ASTM-D 2671 Meth. A	non-corrosive	non-corrosive
Copper Compatibility	ASTM-D 2671 Meth. B	non-corrosive	non-corrosive
Chemical Resistance		good	good
Water Absorption	VDE 0472	0,20%	0,20%

Printability	Hot stamp	Ink jet	Offset
	very good	good	good

Ordering: **Specify the product name** plus each of the following options: 1) Size 2) Colour 3) Total Quantity + Delivery Unit 4) Printing Options
For example: DERAY®-I 3000 6/2 black, 1.800 mtr., 300m-spool, unprinted