

HEAT SHRINKABLE TUBINGS



HEAT SHRINKABLE TUBINGS

PX-55 Heat shrinkable tube

Standard: UL 224 VW-1 / C-UL CSA C 22.2 OFT

Product Introduction:

PX-55 Halogen Free Heat Shrinkable Tube is newly developed environment-friendly flame retardant heat shrinkable tube, using specially designed formulation of high polymers, through cross-link by electronic accelerator and continuous expansion.

The properties of environment-friendly, flexibility flame retardant, quick shrink and stable performance mark them widely used in the field of electronics, communication, automobile and widely applied for connecting or end-handing, electric wire, insulating and harness of electric wire, corrosion and rust-proof of metallic rods or tubes, antenna protection and marking for other products.

Characteristics:

1. Do not contain eight heavy metal elements and four halogen elements. Passed SGS test.
2. Do not contain organic stannum compound, Asbestos, Azo Compounds and Formaldehyde.
3. Operating Temperature -55°C +135°C.
4. Shrinkable Temperature: Start at +70°C, and shrunk totally at +115°C, Longitudinal shrink ratio: ≤ } 5%.
5. Flexible, flame retardant.
6. Easy for use, using oven or heating gun and it will shrink.
7. Meet Sony and RoHS standard.

Standard color: Black

SGS (Société Generale de Surveillance, www.sgs.com) Test data:

Dangerous elements	test procedure	result
Cd	EN1122; 2001 method B	< 5 mg/kg
Pb	EPA 3050 B	< 90 mg/kg
Sb	EPA 3050 B	< 60 mg/kg
Ba	EPA 3050 B	< 1000 mg/kg
Cr	EPA 3050 B	< 5 mg/kg
Hg	EPA 3052	< 5 mg/kg
As	EPA 3052	< 50 mg/kg
Se	EPA 3052	< 25 mg/kg
F	EN 14582 method B	< 200 mg/kg
Cl	EN 14582 method B	< 800 mg/kg
Br	EN 14582 method B	< 800 mg/kg
I	EN 14582 method B	< 200 mg/kg

Technical Data:

	Property	Test method	Standard	
Physical	Tensile strength (MPA)	GB/T 1040	≥ 10,4	
	Elongation (%)	GB/T 1040	≥ 200	
	Tensile strength after aging (MPA)	UL 224 158°C x 168 hr	≥ 7,3	
	Elongation after aging (%)	UL 224 158°C x 168 hr	≥ 100	
	Heat resistance	UL 224 250° C x 4 hr	no viscosity, no cracking	
Electrical	Cold blend	UL 224 - 30°C x 4 hr	no cracking	
	Dielectric strength (kV/mm)	GB/T 1408	≥ 15	
	Dielectric withstand	150 V	UL 224	no breakdown for 1500 V
		600 V	UL 224	no breakdown for 2500 V
	Volume resistivity Ω x cm	GB/T 1410	≥ 1 x 10 ¹⁴	
Chemical	Anti corrosion	UL 224 158°C x 168 hr	pass	
	Copper stability	UL 224 158°C x 168 hr	pass	
	Flammability	UL 224	VW-1	

HEAT SHRINKABLE TUBINGS

PX-55 Heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -55°C to +125°C

Shrink ratio: 2 : 1

Standard: UL224 VW-1 / C- UL CSA C 22.2 OFT

Approved: UL und CSA

MIL-approval applied for

Rolls

Colours: black (with UL imprint), red, blue, yellow, green, white and transparent.

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack roll/m
51.040	PX-55-1,2	1,2	0,6	0,30	200
51.041	PX-55-1,6	1,6	0,8	0,32	200
51.042	PX-55-2,4	2,4	1,2	0,35	200
51.043	PX-55-3,2	3,2	1,6	0,40	200
51.044	PX-55-4,8	4,8	2,4	0,50	100
51.045	PX-55-6,4	6,4	3,2	0,55	100
51.046	PX-55-9,5	9,5	4,8	0,60	100
51.047	PX-55-12,7	12,7	6,4	0,65	100
51.048	PX-55-19,0	19,0	9,5	0,80	100
51.049	PX-55-25,4	25,4	12,7	0,90	50
51.050	PX-55-38,1	38,1	19,0	1,00	50
51.051	PX-55-50,8	50,8	25,4	1,00	25
51.052	PX-55-76,2	76,2	38,1	1,46	25
51.053	PX-55-101,6	101,6	50,8	1,46	25

Colour deliverable in black without printing if desired.

Boxes

Colours: black, red, blue, yellow, green, white and transparent.

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack box/m
51.170	PX-55-1,2	1,2	0,6	0,30	20
51.171	PX-55-1,6	1,6	0,8	0,32	17
51.172	PX-55-2,4	2,4	1,2	0,35	15
51.173	PX-55-3,2	3,2	1,6	0,40	15
51.174	PX-55-4,8	4,8	2,4	0,50	12
51.175	PX-55-6,4	6,4	3,2	0,55	12
51.176	PX-55-9,5	9,5	4,8	0,60	8
51.177	PX-55-12,7	12,7	6,4	0,65	8
51.178	PX-55-19,0	19,0	9,5	0,80	5
51.179	PX-55-25,4	25,4	12,7	0,90	5

HEAT SHRINKABLE TUBINGS

PX-55 Heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -55°C to +125°C

Shrink ratio: 2 : 1

Standard: UL224 VW-1 / C- UL CSA C 22.2 OFT

Approved: UL und CSA

MIL-approval applied for



Art. No.	Type	Colour	Inside Ø vor shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack/bag (item x cm)
51.260	PX-55-1,6	black	1,6	0,8	0,32	10 x 20
51.261	PX-55-1,6	blue	1,6	0,8	0,32	10 x 20
51.262	PX-55-1,6	red	1,6	0,8	0,32	10 x 20
51.267	PX-55-2,4	black	2,4	1,2	0,35	10 x 20
51.268	PX-55-2,4	blue	2,4	1,2	0,35	10 x 20
51.269	PX-55-2,4	red	2,4	1,2	0,35	10 x 20
51.274	PX-55-3,2	black	3,2	1,6	0,40	10 x 20
51.275	PX-55-3,2	blue	3,2	1,6	0,40	10 x 20
51.276	PX-55-3,2	red	3,2	1,6	0,40	10 x 20
51.281	PX-55-4,8	black	4,8	2,4	0,50	10 x 20
51.282	PX-55-4,8	blue	4,8	2,4	0,50	10 x 20
51.283	PX-55-4,8	red	4,8	2,4	0,50	10 x 20
51.288	PX-55-6,4	black	6,4	3,2	0,55	10 x 20
51.289	PX-55-6,4	blue	6,4	3,2	0,55	10 x 20
51.290	PX-55-6,4	red	6,4	3,2	0,55	10 x 20
51.295	PX-55-9,5	black	9,5	4,8	0,60	10 x 20
51.296	PX-55-9,5	blue	9,5	4,8	0,60	10 x 20
51.297	PX-55-9,5	red	9,5	4,8	0,60	10 x 20
51.302	PX-55-12,7	black	12,7	6,4	0,65	10 x 20
51.304	PX-55-12,7	red	12,7	6,4	0,65	10 x 20
51.309	PX-55-19,0	black	19,0	9,5	0,80	10 x 20
51.310	PX-55-19,0	blue	19,0	9,5	0,80	10 x 20

HEAT SHRINKABLE TUBINGS

PX-55 Heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -55°C to +125°C

Shrink ratio: 2 : 1

Standard: UL224 VW-1 / C- UL CSA C 22.2 OFT

Approved: UL and CSA

Rolls

Colour: green/yellow

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack roll/m
51.040.GNGE	PX-55-1,2	1,2	0,6	0,30	200
51.041.GNGE	PX-55-1,6	1,6	0,8	0,32	200
51.042.GNGE	PX-55-2,4	2,4	1,2	0,35	200
51.043.GNGE	PX-55-3,2	3,2	1,6	0,40	200
51.044.GNGE	PX-55-4,8	4,8	2,4	0,50	100
51.045.GNGE	PX-55-6,4	6,4	3,2	0,55	100
51.046.GNGE	PX-55-9,5	9,5	4,8	0,60	100
51.047.GNGE	PX-55-12,7	12,7	6,4	0,65	100
51.048.GNGE	PX-55-19,0	19,0	9,5	0,80	100
51.049.GNGE	PX-55-25,4	25,4	12,7	0,90	50
51.050.GNGE	PX-55-38,1	38,1	19,0	1,00	50
51.051.GNGE	PX-55-50,8	50,8	25,4	1,00	25
51.052.GNGE	PX-55-76,2	76,2	38,1	1,46	25
51.053.GNGE	PX-55-101,6	101,6	50,8	1,46	25

Boxes

Colour: green/yellow

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack box/m
51.170.GNGE	PX-55-1,2	1,2	0,6	0,30	20
51.171.GNGE	PX-55-1,6	1,6	0,8	0,32	17
51.172.GNGE	PX-55-2,4	2,4	1,2	0,35	15
51.173.GNGE	PX-55-3,2	3,2	1,6	0,40	15
51.174.GNGE	PX-55-4,8	4,8	2,4	0,50	12
51.175.GNGE	PX-55-6,4	6,4	3,2	0,55	12
51.176.GNGE	PX-55-9,5	9,5	4,8	0,60	8
51.177.GNGE	PX-55-12,7	12,7	6,4	0,65	8
51.178.GNGE	PX-55-19,0	19,0	9,5	0,80	5
51.179.GNGE	PX-55-25,4	25,4	12,7	0,90	5

HEAT SHRINKABLE TUBINGS

PX-100 Heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -55°C to +135°C

Shrink ratio: 2 : 1

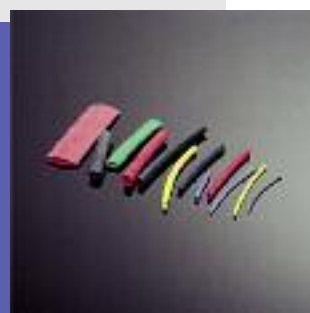
Standard: UL224 135°C and AMS-DTL-23053/5 grade 1

Colour: black

Technical Data:

		Test procedure	Results
Physical properties	Tensile strength (MPA)	ASTM D638	> 10,4
	Elongation (%)	ASTM D638	> 200
	Longitudinal change	UL 224	± 5%
Electrical properties	Dielectric strength (kV/mm)	ASTM D150	> 15
	Volume resistivity $\Omega \times \text{cm}$	ASTM D876	> 1×10^{14}
Chemical properties	Water absorption	ASTM D570	< 0,5%
	Copper stability	UL 224	passed

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack roll/m
51.100	PX-100-1,2	1,2	0,6	0,40	200
51.101	PX-100-1,6	1,6	0,8	0,43	200
51.102	PX-100-2,4	2,4	1,2	0,51	200
51.103	PX-100-3,2	3,2	1,6	0,51	200
51.104	PX-100-4,8	4,8	2,4	0,51	100
51.105	PX-100-6,4	6,4	3,2	0,64	100
51.106	PX-100-9,5	9,5	4,8	0,64	100
51.107	PX-100-12,7	12,7	6,4	0,64	100
51.108	PX-100-19,0	19,0	9,5	0,76	100
51.109	PX-100-25,4	25,4	12,7	0,89	50
51.110	PX-100-38,1	38,1	19,0	1,02	50
51.111	PX-100-50,8	50,8	25,4	1,27	25
51.112	PX-100-76,2	76,2	38,1	1,27	25
51.113	PX-100-101,6	101,6	50,8	1,40	25



HEAT SHRINKABLE TUBINGS

PX-300 Heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -55°C to +135°C

Shrink ratio: 3 : 1

Standard: UL224 135°C and AMS-DTL-23053/5 grade 1

Colour: black

Technical Data:

		Test procedure	Results
Physical properties	Tensile strength (MPa)	ASTM D638	> 10,4
	Elongation (%)	ASTM D638	> 200
	Longitudinal change	UL 224	± 5%
Electrical properties	Dielectric strength (kV/mm)	ASTM D150	> 15
	Volume resistivity $\Omega \times \text{cm}$	ASTM D876	> 1×10^{14}
Chemical properties	Water absorption	ASTM D570	< 0,5%
	Copper stability	UL 224	passed

Rolls

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack roll/m
51.119	PX-300-1,5	1,5	0,5	0,45	200
51.120	PX-300-3,0	3,0	1,0	0,55	200
51.121	PX-300-4,8	4,5	1,5	0,60	100
51.122	PX-300-6,0	6,0	2,0	0,65	100
51.123	PX-300-9,0	9,0	3,0	0,75	50
51.124	PX-300-12,0	12,0	4,0	0,75	50
51.125	PX-300-18,0	18,0	6,0	0,85	50
51.126	PX-300-24,0	24,0	8,0	1,00	50
51.127	PX-300-39,0	39,0	13,0	1,50	25

Boxes

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack box/m
51.140	PX-300-1,5	1,5	0,5	0,45	10
51.141	PX-300-3,0	3,0	1,0	0,55	10
51.142	PX-300-4,8	4,5	1,5	0,60	10
51.143	PX-300-6,0	6,0	2,0	0,65	5
51.144	PX-300-9,0	9,0	3,0	0,75	5
51.145	PX-300-12,0	12,0	4,0	0,75	5
51.146	PX-300-18,0	18,0	6,0	0,85	4
51.147	PX-300-24,0	24,0	8,0	1,00	3

HEAT SHRINKABLE TUBINGS

PX-300 Heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -55°C to +125°C

Shrink ratio: 3 : 1

Approved: UL and CSA

Technical Data:

		Test procedure	Results
Physical properties	Tensile strength (MPA)	GB/T 1040	> 10,4
	Elongation (%)	GB/T 1040	> 200
	Tensile strength after aging (MPA)	UL 224 158°C x 168 h	>7,3
	Elongation after aging (%)	UL 224 158°C x 168 h	> 100
	Heat resistance	UL 224 250°C x 4 h	no viscosity, no cracking
Electrical properties	Dielectric strength (kV/mm)	GB/T 1408	> 15
	Volume resistivity $\Omega \times \text{cm}$	GB/T 1410	> 1×10^{14}
Chemical properties	Flammability	UL 224	VW-1

Rolls

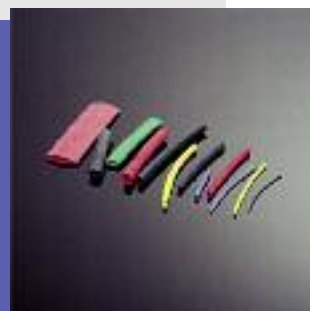
Colour: green/yellow

Art. No.	Type	inside Ø before shrinking	inside Ø after shrinking	Wall thickness after shrinking	Pack Roll/m
51.120.GNGE	PX-300-3,0	3,0	1,0	0,60	200
51.121.GNGE	PX-300-4,8	4,5	1,5	0,65	100
51.122.GNGE	PX-300-6,0	6,0	2,0	0,70	100
51.123.GNGE	PX-300-9,0	9,0	3,0	0,80	50
51.124.GNGE	PX-300-12,0	12,0	4,0	0,95	50
51.125.GNGE	PX-300-18,0	18,0	6,0	1,10	50
51.126.GNGE	PX-300-24,0	24,0	8,0	1,25	25
51.127.GNGE	PX-300-39,0	39,0	13,0	1,40	25

Boxes

Colour: green/yellow

Art. No.	Type	inside Ø before shrinking	inside Ø after shrinking	Wall thickness after shrinking	Pack Box/m
51.141.GNGE	PX-300-3,0	3,0	1,0	0,60	10
51.142.GNGE	PX-300-4,8	4,5	1,5	0,65	10
51.143.GNGE	PX-300-6,0	6,0	2,0	0,70	5
51.144.GNGE	PX-300-9,0	9,0	3,0	0,80	5
51.145.GNGE	PX-300-12,0	12,0	4,0	0,95	5
51.146.GNGE	PX-300-18,0	18,0	6,0	1,10	4
51.147.GNGE	PX-300-24,0	24,0	8,0	1,25	3



HEAT SHRINKABLE TUBINGS

PA-100 Heat shrinkable tube with inner adhesive

Material: cross-linked, heat-stabilized, flame retardant polyolefin with thermoplastic adhesive layer inside.

Temperature resistance: -45°C to +125°C

Shrink ratio: 3 : 1

Colour: black

Technical Data:

		Test procedure	Results
Physical properties	Tensile strength (MPa)	ASTM D2671	> 12
	Elongation (%)	ASTM D2671	> 300
	Tensile strength after aging (MPa)	UL 224 158°C x 168 h	>7,3
	Elongation after aging (%)	UL 224 158°C x 168 h	> 200
Electrical Eigenschaften	Dielectric strength (kV/mm)	IEC 243	> 15
	Volume resistivity $\Omega \times \text{cm}$	IEC 93	> 1 x 10 ¹⁴

Properties internal adhesive

		Test procedure	Results
Physical properties	Tensile strength (PE)	ASTM D1000	120N/25m
	Tensile strength (AL)	ASTM D1000	80N/25m
	Softening temperature	ASTM E8	95°C
Chemical properties	Water absorption	ASTM D570	< 0,2%

Rolls

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Hot melt-adhesive	Pack Roll/m
52.460	PA-100-3,0	3,2	1,0	0,95	0,35	200
52.461	PA-100-4,8	4,8	1,6	1,10	0,40	100
52.462	PA-100-6,0	6,4	2,2	1,20	0,45	100
52.463	PA-100-9,0	9,5	3,2	1,45	0,50	50
52.464	PA-100-12,0	12,7	4,2	1,70	0,50	25
52.465	PA-100-19,0	19,1	6,3	2,00	0,55	25
52.466	PA-100-24,0	25,4	8,5	2,10	0,55	25
52.467	PA-100-39,0	39,0	13,5	2,40	0,60	25

Boxes

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Hot melt-adhesive	Pack Box/m
51.180	PA-100-BOX-3,0	3,2	1,0	0,95	0,35	10
51.181	PA-100-BOX-4,8	4,8	1,6	1,10	0,40	8
51.182	PA-100-BOX-6,0	6,4	2,2	1,20	0,45	5
51.183	PA-100-BOX-9,0	9,5	3,2	1,45	0,50	5
51.184	PA-100-BOX-12,0	12,7	4,2	1,70	0,50	4
51.185	PA-100-BOX-19,0	19,1	6,3	2,00	0,55	2,5
51.186	PA-100-BOX-24,0	25,4	8,5	2,10	0,55	2

Technical changes are reserved. Dimensions in mm.

HEAT SHRINKABLE TUBINGS

PA-100 Heat shrinkable tube with inner adhesive

Material: cross-linked, heat-stabilized, flame retardant polyolefin with thermoplastic adhesive layer inside.

Temperature resistance: -45°C to +125°C

Shrink ratio: 3 : 1

Colour: black

Properties: See P. 117

Rods

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Hot melt adhesive	Pack rod/m
51.150	PA-100-3,0	3,2	1,0	0,95	0,35	10 x 1,2 m
51.151	PA-100-4,8	4,8	1,6	1,10	0,40	10 x 1,2 m
51.152	PA-100-6,0	6,4	2,2	1,20	0,45	10 x 1,2 m
51.153	PA-100-9,0	9,5	3,2	1,45	0,50	10 x 1,2 m
51.154	PA-100-12,0	12,7	4,2	1,70	0,50	10 x 1,2 m
51.155	PA-100-19,0	19,1	6,3	2,00	0,55	10 x 1,2 m
51.156	PA-100-24,0	25,4	8,5	2,10	0,55	10 x 1,2 m
51.157	PA-100-39,0	39,0	13,5	2,40	0,60	10 x 1,2 m

PA-400 Heat shrinkable tube with inner adhesive

Material: cross-linked, heat-stabilized, flame retardant polyolefin with thermoplastic adhesive layer inside.

Temperature resistance: -45°C to +125°C

Shrink ratio: 4 : 1

Colour: black

Properties: See P. 117

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Hot melt adhesive	Pack rod/m
51.160	PA-400-4,0	4,0	1,0	1,00	0,40	1,2 m
51.161	PA-400-8,0	8,0	2,0	1,50	0,50	1,2 m
51.162	PA-400-12,0	12,0	3,0	1,70	0,50	1,2 m
51.163	PA-400-16,0	16,0	4,0	2,00	0,60	1,2 m
51.164	PA-400-24,0	24,0	6,0	2,50	0,60	1,2 m
51.165	PA-400-32,0	32,0	8,0	2,80	0,70	1,2 m
51.166	PA-400-52,0	52,0	13,0	3,00	0,70	1,2 m

HEAT SHRINKABLE TUBINGS

PMWO-100 Middle-wall heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -45°C to +125°C

Shrink ratio: 3 : 1 tp 3,5 : 1

Colour: black

Technical Data:

		Test procedure	Results
Physical properties	Tensile strength (MPa)	ASTM D2671	> 14
	Elongation (%)	ASTM D2671	> 400
	Density	ASTM D792	1,20g/cm ³
	Elongation after aging (%)	UL 224 158°C x 168 h	> 300
	Heat resistance	UL 224 250°C x 4 h	no viscosity, no cracking
Electrical properties	Dielectric strength (kV/mm)	IEC 243	> 20
	Volume resistivity Ω x cm	IEC 93	> 1 x 10 ¹⁴
Chemical properties	Water absorption	ASTM D570	< 0,15%

Properties internal adhesive:

		Test procedure	Results
Physical properties	Tensile strength (PE)	ASTM D1000	120N/25m
	Tensile strength (AL)	ASTM D1000	80N/25m
	Softening temperature	ASTM E8	95°C
Chemical properties	Water absorption	ASTM D570	< 0,2%

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack rod/m
52.427	PMWO-100-10	10,2	3,0	1,75	1,2
52.428	PMWO-100-16	16,0	5,0	1,90	1,2
52.429	PMWO-100-19	19,1	5,6	2,45	1,2
52.430	PMWO-100-25	25,0	8,0	2,45	1,2
52.431	PMWO-100-28	28,0	9,0	2,60	1,2
52.432	PMWO-100-38	38,1	12,0	2,70	1,2
52.433	PMWO-100-43	43,2	12,7	2,70	1,2
52.434	PMWO-100-52	52,1	16,0	2,80	1,2
52.435	PMWO-100-63	63,0	19,0	3,00	1,2
52.436	PMWO-100-75	75,0	22,0	3,00	1,2
52.437	PMWO-100-85	85,0	25,0	3,30	1,2
52.438	PMWO-100-95	95,0	29,0	3,70	1,2
52.439	PMWO-100-115	115,0	34,0	3,70	1,2
52.440	PMWO-100-140	140,0	42,0	3,70	1,2

HEAT SHRINKABLE TUBINGS

PMW-100 Middle-wall heat shrinkable tube with inner adhesive

Material: irradiation cross-linked, heat-stabilized, flame retardant polyolefin with thermoplastic adhesive layer inside.

Temperature resistance: -45°C to +125°C

Shrink ratio: 3 : 1 bis 3,5 : 1

Colour: black



Properties: See P. 119

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Hot melt adhesive	Pack rod/m
52.400	PMW-100-10	10,2	3,0	1,75	0,35	1,2
52.401	PMW-100-16	16,0	5,0	1,90	0,40	1,2
52.402	PMW-100-19	19,1	5,6	2,45	0,45	1,2
52.403	PMW-100-25	25,0	8,0	2,45	0,45	1,2
52.404	PMW-100-28	28,0	9,0	2,60	0,50	1,2
52.405	PMW-100-38	38,1	12,0	2,70	0,50	1,2
52.406	PMW-100-43	43,2	12,7	2,70	0,50	1,2
52.407	PMW-100-52	52,1	16,0	2,80	0,50	1,2
52.408	PMW-100-63	63,0	19,0	3,00	0,50	1,2
52.409	PMW-100-75	75,0	22,0	3,00	0,50	1,2
52.410	PMW-100-85	85,0	25,0	3,30	0,50	1,2
52.411	PMW-100-95	95,0	29,0	3,70	0,60	1,2
52.412	PMW-100-115	115,0	34,0	3,70	0,60	1,2
52.413	PMW-100-140	140,0	42,0	3,70	0,60	1,2

HEAT SHRINKABLE TUBINGS

PDWO-100 Thick wall heat shrinkable tube

Material: cross-linked, heat-stabilized, flame retardant polyolefin

Temperature resistance: -45°C to +125°C

Shrink ratio: 3 : 1 to 3,5 : 1

Colour: black

Technical Data:

		Test procedure	Results
Physical properties	Tensile strength (MPa)	ASTM D2671	> 14
	Elongation (%)	ASTM D2671	> 400
	Density	ASTM D792	1,20g/cm ³
	Tearing extension after aging (%)	UL 224 158°C x 168 h	> 300
	Heat resistance	UL 224 250°C x 4 h	no viscosity, no cracking
Electrical properties	Dielectric strength (kV/mm)	IEC 243	> 20
	Volume resistivity $\Omega \times \text{cm}$	IEC 93	> 1×10^{14}
Chemical properties	Water absorption	ASTM D570	< 0,15%

Properties internal adhesive:

		Test procedure	Results
Physical properties	Tensile strength (PE)	ASTM D1000	120N/25m
	Tensile strength (AL)	ASTM D1000	80N/25m
	Softening temperature	ASTM E8	95°C
Chemical properties	Water absorption	ASTM D570	< 0,2%

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack rod/m
52.441	PDWO-100-9	9,0	3,0	2,30	1,2
52.442	PDWO-100-13	13,0	4,0	2,75	1,2
52.443	PDWO-100-20	20,0	6,0	2,90	1,2
52.444	PDWO-100-28	28,0	9,0	2,90	1,2
52.445	PDWO-100-33	33,0	10,2	3,60	1,2
52.446	PDWO-100-38	38,1	12,0	4,00	1,2
52.447	PDWO-100-43	43,2	12,0	5,00	1,2
52.448	PDWO-100-51	51,0	16,0	5,00	1,2
52.449	PDWO-100-70	70,0	21,0	5,00	1,2
52.450	PDWO-100-85	85,0	25,0	5,00	1,2
52.451	PDWO-100-105	105,0	30,0	5,10	1,2
52.452	PDWO-100-120	120,0	39,0	5,10	1,2
52.453	PDWO-100-140	140,0	42,0	5,10	1,2

HEAT SHRINKABLE TUBINGS

PDW-100 Thick wall heat shrinkable tube with inner adhesive

Material: cross-linked, heat-stabilized, flame retardant polyolefin with thermoplastic adhesive layer inside.

Temperature resistance: -45°C to +125°C

Shrink ratio: 3 : 1 to 3,5 : 1

Colour: black

Properties: See P. 121



Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Hot melt-adhesive	Pack rod/m
52.414	PDW-100-9	9,0	3,0	2,30	0,35	1,2
52.415	PDW-100-13	13,0	4,0	2,75	0,35	1,2
52.416	PDW-100-20	20,0	6,0	2,90	0,40	1,2
52.417	PDW-100-28	28,0	9,0	2,90	0,40	1,2
52.418	PDW-100-33	33,0	10,2	3,60	0,40	1,2
52.419	PDW-100-38	38,1	12,0	4,00	0,60	1,2
52.420	PDW-100-43	43,2	12,0	5,00	0,70	1,2
52.421	PDW-100-51	51,0	16,0	5,00	0,70	1,2
52.422	PDW-100-70	70,0	21,0	5,00	0,70	1,2
52.423	PDW-100-85	85,0	25,0	5,00	0,70	1,2
52.424	PDW-100-105	105,0	30,0	5,10	0,80	1,2
52.425	PDW-100-120	120,0	39,0	5,10	0,80	1,2
52.426	PDW-100-140	140,0	42,0	5,10	0,80	1,2

HEAT SHRINKABLE TUBINGS

KX-175 Heat shrinkable tube

Material: thin-walled Kynar®
 Temperature resistance: -55°C to -175°C
 Shrink temperature: +175°C
 Shrink ratio: 2 : 1
 Standard: AMS-DTL-23053/8
 Colour: transparent

Technical Data:

Highly flame resistant, excellent resistance to chemicals and solvents
 highly wear resistant.

Rolls

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack roll/m
52.500	KX-175-1,2	1,2	0,6	0,24	300
52.501	KX-175-1,6	1,6	0,8	0,24	300
52.502	KX-175-2,4	2,4	1,2	0,24	300
52.503	KX-175-3,2	3,2	1,6	0,24	300
52.504	KX-175-4,8	4,8	2,4	0,24	300
52.505	KX-175-6,4	6,4	3,2	0,30	300
52.506	KX-175-9,5	9,5	4,8	0,30	150
52.507	KX-175-12,7	12,7	6,4	0,30	100
52.508	KX-175-19,0	19,0	9,5	0,40	50
52.509	KX-175-25,4	25,4	12,7	0,50	50

Rods

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack rod/m
52.510	KX-175-1,2	1,2	0,6	0,24	1,2
52.511	KX-175-1,6	1,6	0,8	0,24	1,2
52.512	KX-175-2,4	2,4	1,2	0,24	1,2
52.513	KX-175-3,2	3,2	1,6	0,24	1,2
52.514	KX-175-4,8	4,8	2,4	0,24	1,2
52.515	KX-175-6,4	6,4	3,2	0,30	1,2
52.516	KX-175-9,5	9,5	4,8	0,30	1,2
52.517	KX-175-12,7	12,7	6,4	0,30	1,2
52.518	KX-175-19,0	19,0	9,5	0,40	1,2
52.519	KX-175-25,4	25,4	12,7	0,50	1,2

HEAT SHRINKABLE TUBINGS

VX-220 Heat shrinkable tube

Material: thin-walled irradiation crosslinked Viton®

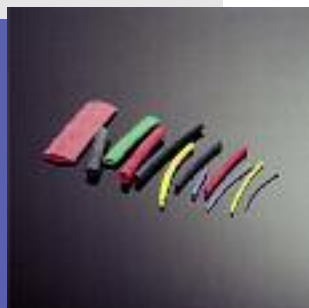
Temperature resistance: -55°C to +220°C

Shrink temperature: +175°C

Shrink ratio: 2 : 1

Standard: AMS-DTL-23053/13

Colour: black



Technical Data:

Flame-protected, excellent resistance to corrosion at extreme Temperatures, high wear resistance

Art. No.	Type	Inside Ø before shrinking	Inside Ø after shrinking	Wall thickness after shrinking	Pack roll/m
52.520	VX-220-3,2	3,2	1,6	0,80	50
52.521	VX-220-4,8	4,8	2,4	0,90	50
52.522	VX-220-6,4	6,4	3,2	0,90	50
52.523	VX-220-9,5	9,5	4,8	1,00	50
52.524	VX-220-12,7	12,7	6,4	1,20	30
52.525	VX-220-19,0	19,0	9,5	1,40	30
52.526	VX-220-25,4	25,4	12,7	1,80	30
52.527	VX-220-38,1	38,1	19,0	2,40	15
52.528	VX-220-50,8	50,8	25,4	2,80	15