

# Heat-shrink Tube

## Type **SR1F**

**Thin wall • self-extinguishing • shrink ratio 2 : 1**

### Application

- Insulating, bundling, marking
- Prevents corrosion
- Mechanical protection

### Features

- Thin wall, without hot melting adhesive
- Self-extinguishing
- Easy to print on
- High tensile strength
- Resistant to cold flow
- Flexible
- Very good electrical properties
- Good resistance against chemical agents
- Non-corrosive
- UV-resistant

### Material

Cross-linked polyolefin, free of lead and cadmium

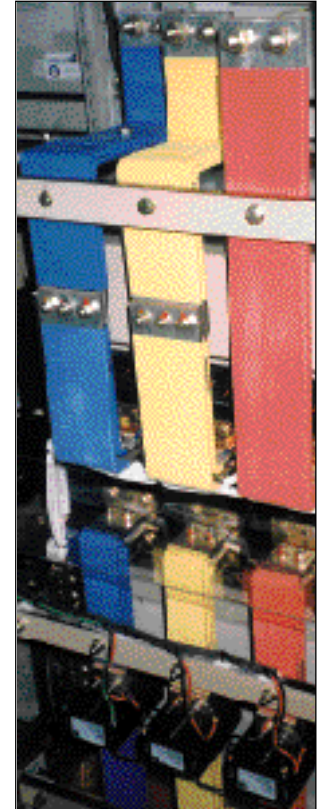
### Tests

- Approved according to UL E172094
- In accordance with MIL-I-23053/5 Class 1

### Colours

Black, blue, yellow, red, white, transparent, green-yellow (only available up to Type 38.1 – 19.1)

Other colours upon request.



### Ordering Details

Type		Diameter	Diameter	Wall	Coil
		mm	recovered	thickness*	length
			mm	mm	m
SR1F	1.2 – 0.6/m	1.2	0.6	0.41	300
SR1F	1.6 – 0.8/m	1.6	0.8	0.43	300
SR1F	2.4 – 1.2/m	2.4	1.2	0.51	300
SR1F	3.2 – 1.6/m	3.2	1.6	0.51	300
SR1F	4.8 – 2.4/m	4.8	2.4	0.51	300
SR1F	6.4 – 3.2/m	6.4	3.2	0.64	300
SR1F	9.5 – 4.8/m	9.5	4.8	0.64	150
SR1F	12.7 – 6.4/m	12.7	6.4	0.64	100
SR1F	19.1 – 9.5/m	19.1	9.5	0.76	50
SR1F	25.4 – 12.7/m	25.4	12.7	0.89	50
SR1F	38.1 – 19.1/m	38.1	19.1	1.02	50
SR1F	51 – 25.4/m	51.0	25.4	1.14	50
SR1F	76 – 38 /m	76.0	38.0	1.27	25
SR1F	102 – 51 /m	102.0	51.0	1.40	25

\* recovered

Please state colour(s) when ordering. Metre pieces on request.

## SR1F – Physical Properties

Density	ASTM-D 792, A-I	~ 1.25	g/cm <sup>3</sup>
Elongation at tear	IEC 811-1-1	≥ 200	%
Tensile strength	IEC 811-1-1	≥ 10	MPa
Longitudinal shrinkage	ASTM-D 2671	≤ 10	%
Secant modulus	ASTM-D 882	< 175	MPa
Shrink ratio	IEC 811-1-1	2 : 1	

## SR1F – Thermal Properties

Stock temperature		≤ 50	°C
Operating temperature range	IEC 216	-55 – +125	°C
Shrinking temperature	CPT-Test method	≥ 110	°C
Burning behaviour	ASTM-D876	self-extinguishing*	
Flexibility at low temperatures	ASTM-D 2671 C	-55	°C
Thermal ageing (168 h at 150 °C)	IEC 811-1-1		
• Elongation at tear		≥ 150	%
• Tensile strength		≥ 10	MPa

## SR1F – Electrical Properties

Dielectric strength	DIN VDE 0303 P. 2	20	kV/mm
Volume resistivity	DIN VDE 0303 P. 3	> 10 <sup>14</sup>	Ohm x cm
Dielectric constant	DIN 53483 P. 2+3	2.5	

## SR1F – Chemical Properties

Corrosion	ASTM-D 26 71A+B	none	
Water absorption	VDE 0472	≤ 0.5	%
Resistance to fungus and decay	ISO 846	good	

\*all colours except transparent

All measured values are minimum values  
Alteration right reserved

# Cast-resin Straight-through Joint Type **M**

**For cables up to 1.2 kV**

**Application** For connecting plastic-insulated low voltage, signal and telephone cables.  
Application ranges:

- Overhead
- Underground
- Water (e.g., submersible pumps)
- Cable trays

**Features**

- High electrical insulation values
- Watertight both longitudinally and transversely
- High mechanical strength
- Good resistance against UV-radiation, alkaline earths and chemical agents
- Standard resin storable for up to 40 months
- High quality polycarbonate moulds
- Visible splice position before casting
- Large insertion opening for easy casting
- Extremely simple and fast fitting, saves time and costs
- Immediately operational

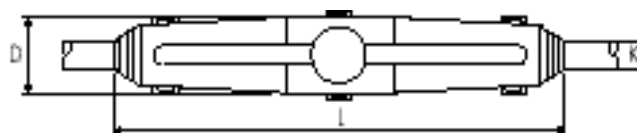
## Ordering Details

Type	L	D*	K	cross-section unarmoured** 0.6/1 kV mm <sup>2</sup>	cross-section armoured** 0.6/1 kV mm <sup>2</sup>
	mm	mm	mm		
MZ00	180	24	7 – 16	5 x 4	
MZ0	250	35	16 – 25	4 x 16	
M11	190	36	14 – 22	4 x 10	4 x 4 +
M12	260	47	14 – 30	4 x 25	4 x 10 +
M13S	310	55	20 – 37	4 x 50	4 x 25 +
M13	360	55	20 – 37	4 x 50	4 x 35 +
M14S	350	70	25 – 42	4 x 95	4 x 50 +
M14	400	70	25 – 42	4 x 95	4 x 70 +
M15	530	100	33 – 55	4 x 150	4 x 120 +
M16	705	125	45 – 74	4 x 240	4 x 240 +
M17	900	150	50 – 90	4 x 300	4 x 300 +
M8	1100	150	50 – 90	4 x 400	4 x 400 +

\* Connector area internal diameter

\*\* Uncrossed conductors

+ For armoured cables additional accessories are necessary and have to be ordered separately



All data in respect of cable allocations are approximate. Contact your CELLPACK representative for the correct choice of product.

## Delivery

Each standard delivery consists of:

- Transparent and self-sealing moulds made of impact-resistant polycarbonate
- Hydrolysis-resistant PUR cast resin, containing the correct volume ready for mixing, in a handy two-chamber mixing bag
- Sealing tape
- Illustrated easy-to-follow mounting instructions

On request, we supply additional parts, such as:

- Connectors
  - Spacer plates
  - Armouring transfer
- etc.

With the necessary accessories, straight-through joints Type M are suitable for paper-insulated cables, and for transition joints.



# Cast-resin Straight-through Joint

## Type **MZ**

**For cables up to 1.2 kV**

**Application** For connecting plastic-insulated low voltage, signal and telephone cables.  
Application ranges:

- Overhead
- Underground
- Water (e.g., submersible pumps)
- Cable trays

**Features**

- High electrical insulation values
- Watertight both longitudinally and transversely
- High mechanical strength
- Good resistance against UV-radiation, alkaline earths and chemical agents
- Standard resin storable for up to 40 months
- High quality polycarbonate moulds
- Visible splice position before casting
- Large insertion opening for easy casting
- Extremely simple and fast fitting, saves time and costs
- Immediately operational

### Ordering details

Type	L	D**	K	Telephone cable unarmoured Ø 0.6/0.8/1.0 mm No. of cores	Signal/Control cable unarmoured 1.5 mm <sup>2</sup> No. of cores
	mm	mm	mm		
MZ00	180	24	7 – 16	5 x 4	5
MZ0	250	35	16 – 25	10 x 4	10
MZ1	400	40	10 – 33	20 x 4	30
MZ2	500	50	15 – 40	40 x 4	80
MZ3	600	60	20 – 50	50 x 4	120
MZ5	800	80	40 – 70	100 x 4	280

\*\* inside diameter of clamp area



All data in respect of cable allocations are approximate. Contact your CELLPACK representative for the correct choice of product.

## Delivery

Each standard delivery consists of:

- Transparent and self-sealing moulds made of impact-resistant polycarbonate
- Hydrolysis-resistant PUR cast resin, containing the correct volume ready for mixing, in a handy two-chamber mixing bag
- Sealing tape
- Illustrated easy-to-follow mounting instructions

On request, we supply additional parts, such as:

- Connectors
- Spacer plates
- Armouring transfer
- Right angle funnels



# Cast-resin Branch Joint Type Y

**For cables up to 1.2 kV**

**Application** For connecting plastic-insulated low voltage, signal and telephone cables.  
Application ranges:

- Overhead
- Underground
- Water
- Cable trays

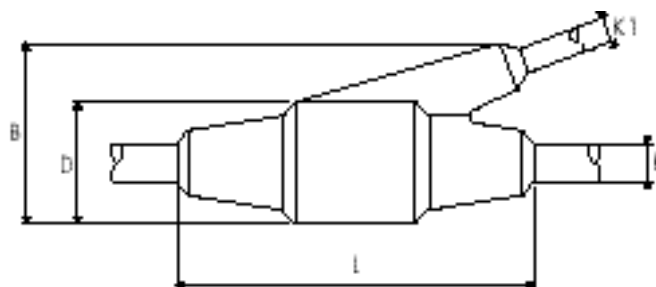
**Features**

- High electrical insulation values
- Watertight both longitudinally and transversely
- High mechanical strength
- Good resistance against UV-radiation, alkaline earths and chemical agents
- Standard resin storable for up to 40 months
- High quality polycarbonate moulds
- Visible splice position before casting
- Large funnels for easy casting
- Extremely simple and fast fitting, saves time and costs
- Immediately operational

## Ordering Details

Type	L	D**	B	K	K1	Main cable unarmoured mm <sup>2</sup>	Main cable armoured mm <sup>2</sup>	Branch cable unarmoured mm <sup>2</sup>	Branch cable armoured mm <sup>2</sup>
	mm	mm	mm	mm	mm				
Y00	150	44	67	8-18	8-18	5 x 2.5		3 x 2.5	
Y0	185	39	73	8-17	8-17	4 x 4		4 x 4	
Y1	240	50	106	9-22	9-22	4 x 10		4 x 10	
Y2	285	64	120	22-39	18-35	4 x 25	4 x 16	4 x 16	4 x 10
Y3*	240	99	145	25-42	21-37	4 x 35		4 x 25	
Y3 1/2	300	100	150	30-54	20-38	4 x 50	4 x 35	4 x 35	4 x 25
Y4*	285	100	165	29-53	21-37	4 x 70		4 x 35	
Y4 1/2 *	335	118	193	32-56	25-42	4 x 95	4 x 70	4 x 50	4 x 35
Y5*	382	136	220	36-62	29-52	4 x 150	4 x 95	4 x 95	4 x 50
Y6*	570	180	272	45-90	35-80	4 x 300	4 x 150	4 x 150	4 x 70

\*\* Inside diameter of clamp area  
\* Version with screw compact clamp possible



All data in respect of cable allocations are approximate. Contact your CELLPACK representative for the correct choice of product.

## Delivery

Each standard delivery consists of:

- Transparent and self-sealing moulds made of impact-resistant polycarbonate
- Hydrolysis-resistant PUR cast resin, containing the correct volume ready for mixing, in a handy two-chamber mixing bag
- Sealing tape
- Funnels
- Illustrated easy-to-follow mounting instructions

On request, we supply additional parts, such as:

- Connectors
  - Armouring transfer
- etc.

With the necessary accessories, joints Type Y are suitable for paper-insulated cables.

