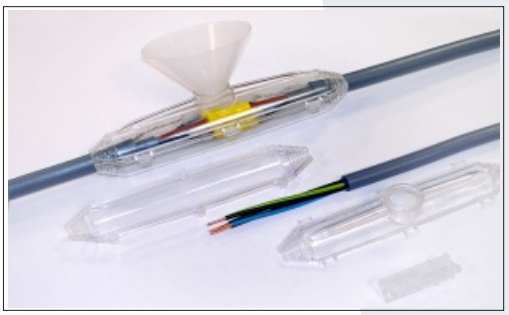
Cast resin joints

FILOform

Straight connection joint various sizes



Cast resin joint for paper- and plastic insulated cables for low voltage applications till 0,6/1 (1,2) kV.

Application:

- Underground, above ground, under water

Features:

- Type testing according to: BS 7888-3:1998 / DIN VDE 0278-623:1997-01
- Easy-mix twin pack resin for added safety
- Hydrolysis resistant polyurethane resin in transparent 2-component bag
- Fully waterproof
- Strong transparent snaplock shells, no resin leakage
- Distance spacers included (version 4x10 - 4x16)
- Sealing tape, installation instruction, and protective gloves inclusive
- Easy and quick installation
- Long shelf life

Connectors and/or earthing kits available.

Cable Ø From-till mm	Number of conductors/ cross section till ..mm²		Number of conductors 1,5 mm²	Dimensions L x H mm	Ref.
	unarmoured	armoured			
6 – 28	4 x 10	4 x 6	10	189 x 40	80163
12 – 32	4 x 25	4 x 16	60	275 x 50	80164
26 – 45	4 x 50	4 x 35	100	355 x 72	80165
37 – 67	4 x 150	4 x 120	200	547 x 108	80166
48 – 88	4 x 240	4 x 185		800 x 132	80167

Subject to change without notice

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Cast resin joints

FILOform

branch joint various sizes

Cast resin joint for paper- and plastic insulated cables for low voltage applications till 0,6/1 (1,2) kV.

Application:

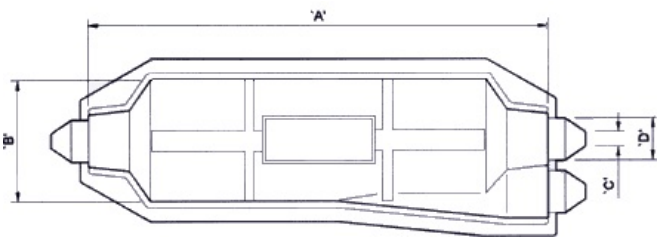
- Underground, above ground, under water

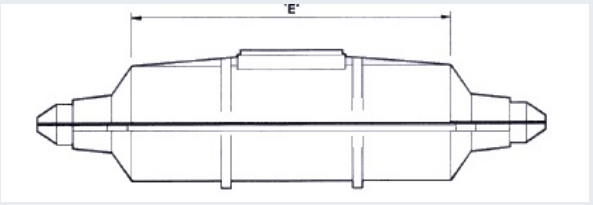
Features:

- Type testing according to: BS 7888-3:1998 / DIN VDE 0278-623:1997-01
- Easy-mix twin pack resin for added safety
- Hydrolysis resistant polyurethane resin in transparent 2-component bag
- Fully waterproof
- Strong transparent snaplock shells, no resin leakage
- Sealing tape, installation instruction, and protective gloves inclusive
- Easy and quick installation
- Long shelf life

Connectors and/or earthing kits available.

Joint shell	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
MB16	235	75	15	25	170
MB35	360	100	15	30	230
MB70	390	120	15	40	240
MB120	570	160	15	50	410
MB185	680	190	58	58	520
MB300	740	250	45	75	620





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Cast resin joints

Cable jointing products

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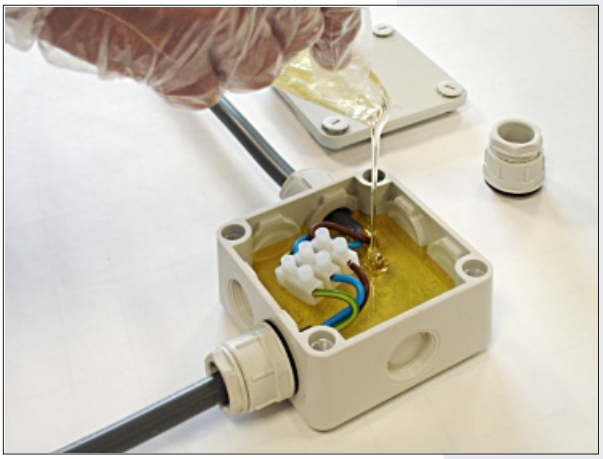
GELBOX

FILOform

GELBOX	Art.nr. 80160



Application

The Gelbox consists of a plastic junction box with an insulating gel-resin, and is suitable for connecting LV electrical cables, telephone cables, etc.
The Gelbox is especially suitable for outdoor- and underground applications or in a humid environment where an IP68 sealing is required..
The gel resin is not harmful and provides easy re-enterability .

Features

- Simple and quick installation
- horizontal en vertical installation possible
- optimal electrical protection
- waterproof
- no harmful substances
- re-enterable
- including 3 pcs cable glands and cover

Set-content

- plastic junction box with cover
- 3 pcs cable glands with seal rings
- 2-component pack gel-resin 200 ml.
- 2 protective gloves
- installation instructions

Technical specifications

Cable size	: max. 4 x 2,5 mm² or diameter 7-14 mm
Temperature range	: - 25 ºC - +60 ºC
Size	: 90 mm x 90 mm x 46 mm (excl. cable glands)
IP-value	: IP 68 conform EN 60529: 1989+A1: 1999

GELBOX

Cable jointing products

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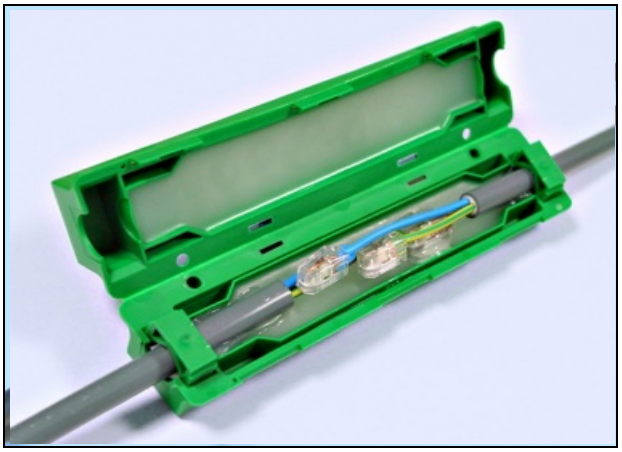
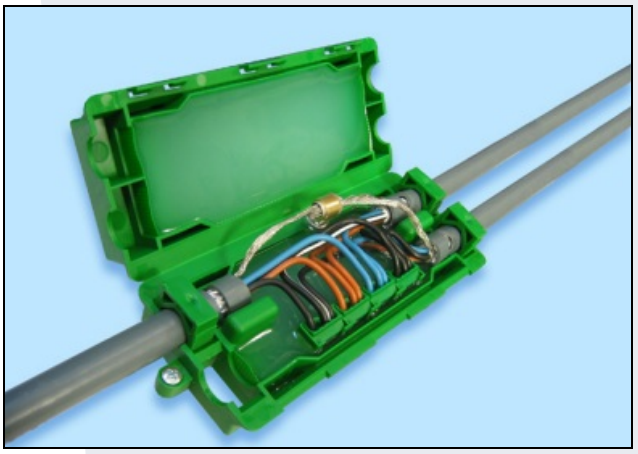
Smart-Joint

FILOform

SMART-JOINT connection joint	Art.nr. 80172
SMART-JOINT (double) branch-off joint	Art.nr. 80176





Description

The Smart-Joint is a cable joint which is pre-filled with an insulating and waterproof filling mass, and is suitable for cable diameters up to 15,7 mm (0,62 inch); 4 x 2,5 mm2.

The Smart-Joint can be used inside and outside as well as underground.

Features

- Quick and easy installation
- Ready to use; the Smart-Joint is being supplied “pre-filled” with the insulating filling mass
- (double) branch-off joint provided with 4 pre-installed connectors and one earth connector
- Fully sealed for water penetration
- Environmental friendly
- No shelf-life
- Provided with cable clamps
- Provided with 2 holes for easy fixation

Technical specifications

Cable diameter	: 5 mm - 15,7 mm
Cable capacity	: max. 4 x 2,5 mm²
Temperature resistance	: - 25 ºC - +70 ºC
Dimensions	: 170 mm x 73 mm x 37 mm
Connectors	: for massive copper wires,
(branch-off joint only)	: 4 x 0,75 - 4 x 2,5 mm², 400 V - 24 A / 2,5 mm²
IP-value	: IP 68 in accordance with EN 60529: 1989 + A1: 1999
Approval	: CE-approval

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Polyurethane resin Filofill P2600

Filofill P2600,	184 ml	Art. nr. 804606
Filofill P2600,	355 ml	Art. nr. 804610
Filofill P2600,	715 ml	Art. nr. 804630

Filofill P2600 is a cold curing 2-component polyurethane resin specially designed for cablejoints up to 10 kV. The resin contains polyether polyols, estherpolyols, and fire retarding additives.

The hardner is an MDI type of high quality. Filofill P2600 does not contain halogens or plasticizers. Filofill P2600 has good anti corrosionproperties and shows a good adhesion to metals, ceramics, and many different plastics, and can be utilized on all plastic- and paper isolated cabletypes.

Properties:

- Very high resistance against UV, chemicals and earth alkalines
- Very high hydrolysis resistance
- No halogens and plasticizers
- Good visibility of the mixingprocess through the transparent packaging
- High impact-resistance
- Low curing temperature
- No toxic emission
- Good adhesion to all cablematerials (PVC, PE, PP and XLPE)
- In accordance with DIN VDE 0291-2, june 1997
- Recommended operationg temperature between 0 and + 35 ºC
- Storage temperature between + 10 and 35 ºC, short term between –10 and + 50 ºC.
- Excellent curing characteristics

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Polyurethane resin Filofill P2600

FILOform

Technical specifications

Properties	Unit	Value	Norm
Potlife:			
5ºC	minutes	45	
23ºC	minutes	17	(+/- 30%)
35ºC	minutes	13	
Jelly like	minutes	23	(+/- 30%)
Density	g/cm^3	1,3	> 1,05 DIN 53479
Compression strength	N/mm^2	20	> 8
Crack resistance	N/mm^2	6,5	> 5
Hardness	shore D	49	> 30
Tensile strength	N/mm^2	9	Information manufacturer (+/- 20%)
Elongation at break	%	60	Information manufacturer (+/- 30%)
Water absorption (24h/23ºC)	mg	18	Max. 25
Water absorption (42d/23ºC)	mg	243	Max. 400
Resistance against moisture after storage in water at 90ºC	N/mm^2 % shore D	6,3 72 45	> 5,85 (65%) > 39 (65%) > 39 (80%)
Disruptive strength	kV/mm	>20	
Temperature resistance	ºC	-25 - +120	
Shelf life	months	18	
Color		Dark antracite	
Mixing time	minutes	2	
Thermal resistance (after 4 weeks/ 120°C)			
Compression set to 30%	N/mm^2	25	< 50
Deformation 24h after the test	%	1	< 10 deformation
Impact resistance	kJ/m^2	20	>10
Weight loss	%	0,8	< 5

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Epoxy resin Kabeline 2392

Kabeline 2392, 197 gram	Art. nr. 80124
Kabeline 2392, 420 gram	Art. nr. 80125

Application

Filoform Kabeline 2392 epoxy resin is an un-filled two component epoxy resin for use in low voltage injection joints till tot 4 kV.

Features

- excellent electrical and mechanical
- suitable for all cable types, such as PVC, (XL) PE, PP and GPLK
- totally resistant against water, applicable under all circumstances (even on wet cables)
- optimal processability due to constant viscosity during mixing and injection.
- approved in accordance with VDE 0291 and NEN 3602
- transparent bag allows visibility during mixing process
- resin and hardener always supplied in the right volumes
- resin which remains in the bag after mixing can be left for hardening and can be disposed as normal waiste

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Epoxy resin Kabeline 2392

FILOform

Technical specifications

DIN VDE 0291, Part 2 / NEN 3602

Properties	unit	Value	Standard
Potlife (process time) 5°C 23°C 35°C	minutes minutes minutes	60 20 10	As specified by manufacturer (±30%)
Gell time	minutes	30	NEN 3602 / Annex A
Density	g / cm3	1,13	DIN 53479 / ISO 1675
Compression strength	N / mm2	12	> 8 DIN EN 20604
Hardness	Shore D	81	> 70 DIN 53505 / ISO 868
Tensile strength	N / mm2	55	DIN EN ISO 527
Waterabsorption (24 h / 23 °C)	%	0,12	DIN 53495
Weight loss after thermal aging (1 week on 120 °C)	%	0,48	NEN EN ISO 179 NEN 3602 / Annex C
Electrical resistance 24 h 50% RH 23°C Electrical resistance 24 h in H2O 23°C Specific resistance 24 h 50% RH 23°C	 Ohm Ohm Ohm x cm	 3,2 [13] 2,6 [13] 1,4 [13]	DIN 53482 DIN 53482 DIN 53482
Tracking resistance		KA 3c	DIN 53480
Dielectric strength	kV / mm	> 20	DIN 53481
Flame point in open cup resin/ hardener	 °C °C	 > 175 > 175	> 55 > 55
Shrink during hardening	%	2,6	< 6,5 DIN 16945
Impact resistance	KJ / m^2	12,5	> 6 DIN 53454
Shelf life	months	18	
Hardening under water	ml / gas	3	< 10 point 13 VDE 0291-2
Colour		orange / red	
Mixing time	minutes	2	
Raw materials		Un-filled epoxy resin	

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Filogel gel resin

FILOform

Filogel gel resin, 200 ml.	Art.nr. 804309

Application:
Filogel is a re-enterable cold curing 2-component non urethane encapsulating gel.
The resin is suitable for telecommunication applications to avoid damage caused by moisture. It is also suitable for insulation of low voltage connections and for the sealing of other electronic parts, especially when no mechanical stress is allowed (even at very low temperatures). For changing the installation or for repairing it, the resin can be removed very easily.

Properties:

- Free of Iso-cyanates, epoxides and silicones
- Not classified according to the EC regulations
- Medium viscosity while pouring
- Good adhesion to metals, minerals and many plastics
- Excellent hydrophobic behaviour

Technical specifications:

Mixture	Mixing ratio resin/hardener	1:1
	Viscosity/ 20ºC	approx. 1.000 cps
	Colour	transparent amber
	Density	0,91 g/cm^3
	Potlife/ 20ºC	approx. 20 min.
	Geltime/ 20ºC	approx. 50 min.
	Temperature resistance	long time 80ºC
		short time 120 ºC
	Elongation at break	95 %
	Corrosion of copper (MS17000, section 1139)	non corrosive
	Insulation resistance @ 500 V DC	1,2 x 10^{12} ohm
	Volume resistivity @ 500 V DC	0,6 x 10^{13} ohm.cm
	Water sensitivity (TA-NWT-000354)	0%
	Water absorbtion (ASTM D570)	0,36 %
	Chemical resistance against mineral oil, 2n H2SO4, CaCO3-solution	no visible degradation

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Constant force springs

CFS	08-0	7,5 – 14,0 mm	Art.nr. 80600
CFS	13-1	13,0 – 22,0 mm	Art.nr. 80601
CFS	18-2	17,5 – 29,5 mm	Art.nr. 80602
CFS	22-3	22,0 – 37,5 mm	Art.nr. 80603
CFS	27-4	26,5 – 44,5 mm	Art.nr. 80604
CFS	40-5	40,0 – 66,5 mm	Art.nr. 80605
CFS	65-6	47,0 – 78,0 mm	Art.nr. 80606

Application

For a trouble-free connection of earth sheating or lead cable sheating.
The constant force spring is a resilient, rolled-up spring. Due to the material characteristics, the constant force spring provides a constant and lasting force to the connection, thus ensuring an excellent connection even after years.
The spring can be applied by hand without any tools, and is corrosion resistant.
The sheating needs to be positioned under- and on top of the first turn. (see page 2)
In a taped resin joint, the spring can be protected with self-vulcanising butylrubber tape.

Characteristics

The steel for the Filoform constant force springs is produced according to a special procedure to provide the required texture thus creating an excellent breaking strength.
The material of the springs has a tensile strength of ± 2500 N/mm² and an elastic modulus of ± 200.000 N/mm² .
The steel of the constant force springs meets the requirements of the DIN-standard 17224/ Materialnr. 1.4310.

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Copper wire mesh

FILOform

Copper wire mesh 25 mm x 4,5 m	Art.nr. 80155

Application

Filoform copper wire mesh is a flexible and woven wire mesh in tube shape.
The mesh is made of tinned copper wire. Copper wire mesh is used for shielding and earthing in telecommunication joints and others. The wire mesh needs to be applied with a slight tensile force,without pleats, and with half overlap.
Both ends of the wire mesh need to be fixed with a constant force spring or by soldering.

Characteristics

- Tinned copper mesh in tube shape
- flexible
- easy to install

Technical specifications

Thickness	: 0,50 mm
Diameter copper wires	: 0,11 mm
Number of loops (width)	: 24
Number of loops (length)	: 8 per 10 mm
Length	: 4,5 m
Width	: 25 mm

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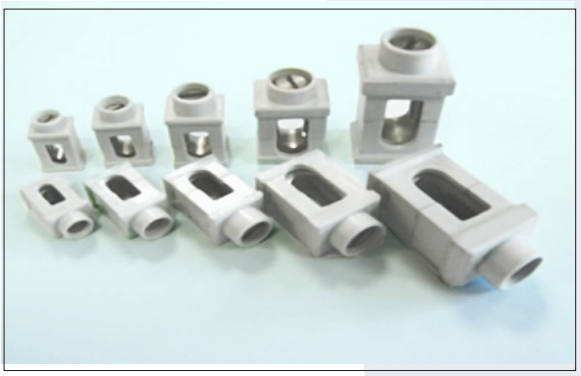
Insulated connection/ branch-off connectors

FILOform

Insulated connection/ branch-off connector	various sizes



Application

Insulated connection/ branch-off connectors are used in cast resin joints as well as injection joints, and are suitable for copper as well as aluminium conductors. The insulated connection/ branch-off connectors consist of a tinned brass terminal and have a grey polycarbonate insulation housing, which is resistant against temperatures of -40 ºC till 130 ºC .

Features

- Very suitable for use in cast resin joints and injection joints
- Lasting pressure due to special buttress thread
- Space saving

Technical specifications

Insulated connection/ branch-off connector	Art. nr.	Diameter mm² Max.	Max. current (A)
6 mm²	800120	2 x 6	25
10 mm²	800121	2 x 10	32
16 mm²	800122	2 x 16	46
25 mm²	800123	2 x 25	50
35 mm²	800124	2 x 35	100

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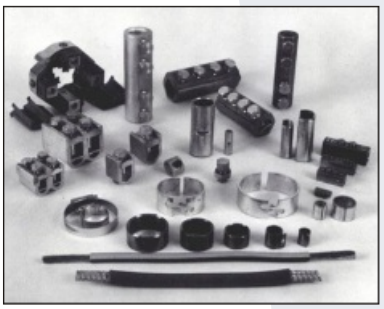
Mechanical connectors
Crimp connectors Burndy



Connector type	Ref.	Core c.s.a. (mm²) min.	max.	Max. diameter (mm) (without conductor)	Length
Brass screw connector 10mm²	800171	2,5	10	13	20
Brass screw connector 16mm²	800172	16	16	13	40
Brass screw connector 70mm²	800173	25	70	17	45

BURNDY
Experience. Technology. Answers.

Burndy is a wellknown brandname in the field of cable connectors and tools. In the Burndy assortment, you will find amongst others: tap-off connectors, cable terminals, (insulated) compression connectors, tubular butt-splices, etc.

In addition, high quality compression- and cuttingtools are available to guarantee a trouble-free installation.

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