


Impregnated Paper Tapes

Scapa are one of only a small number of European manufacturers of specialist impregnated paper tapes, used for the reconstitution of cable insulation or semi-conducting on MV joints, allowing easy taping, even at low temperatures.

Scapa are able to offer a wide range of impregnated paper tapes, specifically designed to meet the individual customer needs. These include:

- Impregnated insulating crêpe paper sets
- Impregnated semi-conducting crêpe paper
- Impregnated Kraft paper sets
- Stress cone assemblies
- Resin oil sets
- Wide lapping papers

IMPREGNATED PAPER						
CODE	WEIGHT (g/m^2)	THICKNESS (micron)	AVAILABLE WIDTHS (mm)	HILL COUNT (per 10mm)	ELECTRICAL PROPERTIES	PAPER WEIGHT BEFORE CRÊPE (g/m^2)
Crêpe paper 1	-	350	15, 50	8-12	4kV/mm	125
Crêpe paper 2	-	230	10, 15, 19, 50	14-16	4kV/mm	75
Crêpe paper 3	-	240	10, 19, 24, 50	14-16	4kV/mm	75
Crêpe paper 4	-	400	50	14-16	4kV/mm	75
Crêpe paper 5	-	550	10, 15, 25, 50	12-18	4kV/mm	75
Semi-con crêpe	100	300	10, 16, 19, 25, 50	-	5000 ohm per sq	-
Cotton	130	450	19, 25	-	-	-
Kraft 80 micron	-	80	10, 15, 25	-	-	-
Kraft 135 micron	100	135	8, 10, 15, 24, 30	-	-	-
Wide lapping paper	100	135	100, 200, 300, 400, 500 620, 750, 800, 1000	-	-	-

The above is a guide. We are happy to discuss individual requirements.

Oil Impregnation
All products are available impregnated in polyisobutylene or hydrocarbon oil.
All products are also available dry (no oil).

Lengths
Crêpe paper – up to 10m (depending on width).
Kraft paper – up to 37m (depending on width).

Packaging
Papers impregnated in polyisobutylene oil are generally supplied vacuum packed in an aluminium foil bag.
Papers impregnated in hydrocarbon oil are generally supplied in a tin and filled with the same oil.
The customer determines the number of coils in a pack. It is possible to put more than one type/size of coil in a pack.

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Resins

Scapa have many years of experience in providing both epoxy and polyurethane resins to the manufacturers of cable kits across Europe, dealing with many of the key market leaders in this field.

RESINS					
CODE	DESCRIPTION	SHORE HARDNESS	POT LIFE (100g at 25°C in air)	DIELECTRIC STRENGTH (kV/mm)	APPLICATION INFORMATION
41 42	Semi rigid, room curing two component **epoxy resin** – amber	A 95	25	25	• Electrical insulation of **LV** cable joints. • Mechanical protection for **MV** cable joints and barrier to moisture. • Recommended for casting in large joints and in very hot and humid climates. • Can be used for the mechanical and water protection of cold shrink joints in humid countries.
46	Flexible, room curing, two component **polyurethane resin** – amber	A70	25	23	• Recommended for casting or injection in large joints when a low peak temperature is required. • Electrical insulation, mechanical protection and barrier to moisture. • Suitable for telecommunication joints due to the low exothermic reaction during polymerisation.
48	Flexible, room curing, two component filled **polyurethane resin** – amber	D63	37	31	• Recommended in very large cast, up to 18 litres, or injected joints when low peak temperatures are required.
65	Rubbery, room curing two component **polyurethane resin** – blue	A15	20	23	• Can be used when re-entering is necessary and for for waterproofing and electrical insulation. • Masking and control of access to the electronic components. • Can be used for small or large cast joints up to 30 litres or injected joints.

Resins – Key Features & Benefits

- 90°C continuous heat resistance.
- Polymerisation adapted to temperate and tropical climates.
- Safe and inert after mixing in double bag.
- 46 and 65 available in a printed double bag or tin.
- Special packaging ensures long service life.

Epoxy

- Specially designed for small or large cast joints up to 5 litres and very large injected joints.
- 41: Exceptionally high adhesion to PVC and PE.
- 42: Packaging adapted to be particularly suitable for tropical climates.

Polyurethane

- Low viscosity allows easy mixing at low temperatures.
- 46: Meets specification VDE 0291 and conforms to UTE C33-010 standard.
- 48: Low thermal resistance, conforms to UTE C33-010 standard.
- 65: Meets EDF HN 26-S-02/FECA 27 M 276 and conforms to UTE C33-010 standard.

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Sealing Putties and Electrical Stress Control Products

Scapa have a range of self fusing sealing putties which are non-tacky, easy to use and apply. Putties are ideal for sealing voids and irregular shapes in joints and terminations and are also used for their waterproofing properties, preventing leaks into cable joints. A range of different thicknesses and levels of hardness are available to suit every application. Scapa also offer specially designed stress control products which are used for smoothing electrical stresses in all forms of joints and terminations.

SEALING PUTTIES

CODE	DESCRIPTION	THICKNESS (mm)	NEEDLE PENETRATION (100g - 5 sec)	DIELECTRIC STRENGTH (kV/mm)	APPLICATION INFORMATION
30	**Electrical sealing putty** – black Tape format	3.2	27	23	• Preventing leaks of resin during injection into taped joints. • Particularly suitable for hot climates. • Permanent waterproofing of **LV** and **MV** taped joints. • Reconstitution of insulation for low voltage joints. • Repair of cable sheaths.
31	**Electrical sealing putty** – yellow Tape or pad format	2	58	23	• Sealing of small or medium size moulds filled with cast resin. • Waterproofing in cast resin joints. • Filling voids and irregular shapes in joints and terminations for polymeric power cables. • Preventing resin infiltration from injected **MV** joints into polymeric cables.
32	**Electrical sealing putty** – black Lump format	-	95	13	• Sealing of large moulds filled with cast resin. • Protects connections from humidity and corrosive vapours.
34	**Electrical sealing putty** – black Tape or pad format	3	42	25	• Preventing leaks of resin during injection into taped joints. • Permanent waterproofing of **LV** and **MV** taped joints. • Reconstitution of insulation for **LV** joints. • Reconstitution of insulation for **MV** joints **(up to 10kV).**
35	**Electrical sealing putty** – grey Tape or pad format	3	52	25	• Permanent sealing of heat shrinkable tubes without hot melt glue. • Filling voids and irregular shapes in joints and terminations of polymeric power cables. • Sealing of **LV** resin cast boxes and **MV** cold shrink joints.
36	**Electrical sealing putty** – grey Tape or pad format	1.2 3	50	15	• Sealing of cold shrinkable **MV** silicone terminations. • Sealing of the outside protection of cold shrinkable **MV** joints.
2573	**Electrical sealing putty** – black Tape format	2	23	16	• Waterproofing of taped joints, repair of cable sheaths and reconstitution for **LV** cables. • Provides a moisture proof seal on telecommunications networks and distribution systems.

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Sealing Putties – Key Features & Benefits

- Stays elastic and non hardening throughout service life
- Thickness allows for easy filling of irregular shapes and voids
- Speedy and economical to use
- Good resistance to water and ozone
- Supplied in easy to use tape format with interleaving for easy separation
- Good physical and electrical properties
- Softness allows additional conformability
- 30: Particularly suitable for hot climates
- 32: Very soft composition, conformable
- 34: Particularly soft composition makes it ideal for colder climates
- 35: Provides very high adhesion on connectors and plastic materials
- 36: No migration of low molecular weight polymers through silicone rubbers, specifically for cold shrink joints or terminations

ELECTRICAL STRESS CONTROL PRODUCTS

CODE	DESCRIPTION	THICKNESS (mm)	PERMITTIVITY (K Value)	APPLICATION INFORMATION
86	**Stress control putty** – grey Tape or pad format	1.2	10	• Used on cold shrinkable joints and terminations up to **33 kV.** • Control of electric field at the cut edge of the insulation screen. • Control of the electrical field around the connector of **MV** heat shrinkable joints.
2527	**High permittivity stress control tape** – grey Tape format	1	>9	• Particularly effective for various 20kV **MV** taped joints and terminations. • Reduction of partial discharges in **MV** joints or terminations of new polymeric cables with reduced thickness. • Control of the electrical field around the connector of **MV** cold shrinkable joints.
2528	**High permittivity stress control tape** – grey Tape format	1.5	>9	
2529	**High permittivity stress control tape** – grey Large tape format	3	>9	

Electrical Stress Control – Key Features & Benefits

- Elimination or reduction of partial discharges in MV joints or terminations.
- High permittivity characteristics.
- Good conformability and amalgamation properties.
- Good mechanical properties adapted to MV tapes joints.
- No external heat or pressure required.
- Can be used over a wide temperature range.
- 86: Specially designed for polymeric cables. High adhesion on XLPE insulation and with self healing properties.

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Self-Amalgamating Tapes

As one of the few European manufacturers of self-amalgamating tapes, Scapa have built a reputation of high quality and performance based on over 30 years of manufacturing expertise.

Self-amalgamating tapes are rubber based, extremely versatile materials, that are non-tacky making them very easy to use and apply. Product characteristics and properties also relates to the type of rubber used in the construction of the tape. They are used particularly for waterproofing, corrosion protection, jointing and repair of cables.

PIB (Polyisobutylene) rubber based tapes have excellent amalgamation properties. However, these products are used more for general purpose or low voltage applications as the service temperature and electrical properties are generally lower than EPR rubber based tapes.

EPR (Ethylene Propylene) rubber based tapes also have excellent amalgamation properties but with better levels of temperature performance and electrical properties are more often the first choice for higher voltage cable applications.

INSULATING TAPES

CODE	DESCRIPTION	THICKNESS (mm)	SERVICE TEMP (°C)	DIELECTRIC STRENGTH (kV/mm)	APPLICATION INFORMATION
75	**Silicone** self-amalgamating tape – grey Triangular section	0.4	-60 to 180	18	• Protection and repair of **MV** cable terminations. • Migrant oil and grease barrier for impregnated paper insulated cables.
2501	**PIB** self-amalgamating tape – black	0.5	-40 to 90	42	• Protection against corrosion on joints and welds. • Joint and repair a wide range of power and distribution cables **(up to 46kV).** • Make watertight seals when jointing PE sheathed telephone cable, both above and below ground.
2504	**PIB** self-amalgamating tape – black	0.75	-40 to 90	42	
2515	**EPR** self-amalgamating tape – black or white	0.5	-40 to 100	44	• Jointing and repair of a wide range of solid dielectric power cables **(up to 132kV).** • Insulation, waterproofing and protection of electrical components.
2517	**EPR** self-amalgamating tape – black	0.75	-40 to 100	42	• Jointing and repair of a wide range of solid dielectric power cables **(up to 69kV).** • Insulation, waterproofing and protection of electrical components.
2547	**EPR** self-amalgamating tape – black	0.75	-40 to 100	44	• Reconstitution of **MV** cable insulation **(up to 69kV).** • Specifically meets the temperature requirements of cross-linked polyethylene cables where high overload temperatures can be encountered.

SEMI-CONDUCTING TAPES

CODE	DESCRIPTION	THICKNESS (mm)	TEMP RESISTANCE (°C)	VOLUME RESISTIVITY (Ohm.cm)	APPLICATION INFORMATION
2525	**EPR semi-conducting** self-amalgamating tape – black	0.75	-40 to 130	‹ 750	• Reconstitution of semi-conducting screens of **MV** and **HV** joints. and terminations. • For smoothing electrical stresses on irregular shaped lugs and connectors, in joints and terminations, and on overhead power lines.

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Self-Amalgamating Tapes – Key Features & Benefits

- Rapid amalgamation to form a void free rubber mass.
- Good physical, electrical and insulation properties.
- Resistant to water and UV.
- Excellent heat ageing characteristics.
- Thicker products available for easier build up of layers.
- Compatible with a wide range of rubber and plastic dielectric cable insulation materials.
- 2547 and 2525: Conform to EDF HN 26-S-04 and meets UTE C33-011 standard.
- 75: Operates in extremes of low and high temperatures up to 180°C (Class H), excellent barrier to grease and oil and approved to MIL – I-468 52B.
- 2525: Embossed or smooth interleaving. Printed with cautionary text.

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Other Specialist Adhesive Tapes

Scapa are not only specialists in the cable field but also are known in Europe as one of the largest manufacturers of adhesive tapes and foams. Our industrial range comprises an extensive range of product types including specialist single sided cloth, PE, foil and paper tapes, double sided and transfer tapes, plus a full range of single and double sided foams.

The products mentioned below represent only a small number of our key products, which are distributed widely for automotive, industrial assembly, medical and sport applications. Whatever the application requirement, Scapa will be able to offer a product to meet your specification needs – choosing from our wide range of substrates and specialist adhesive types to give the appropriate product characteristics and benefits.

OTHER SPECIALIST ADHESIVE TAPES					
CODE	DESCRIPTION	THICKNESS (mm)	TENSILE STRENGTH (N/cm)	ADHESION TO STEEL (N/cm)	APPLICATION INFORMATION
CLOTH TAPES					
1690	**Uncoated rayon cloth tape** – range of colours	0.3	80	3.0	• Protection against friction and knocks to fragile items. • Protection against vibration. • Closure of metal boxes.
1190	**Uncoated cotton cloth tape** – range of colours	0.28	90	3.5	• Protection of tube ends, metal sheets, rubber and plastic hoses. • Reinforcement applications. • Manufacturing of joints under pressure. • Sealing of containers.
1001	General purpose **uncoated cotton cloth tape**	0.25	65	-	• For wire and cable wrapping. • For general-purpose wrapping and binding applications.
3160	**Standard grade** general purpose cloth **waterproof cloth tape**	0.2	35	5.0	• Designed as a general-purpose waterproof cloth tape. • Used for sealing, bundling, masking and protecting. • Recommended product for joining polyethylene sheeting in asbestos removal applications. • Medium temperature duct sealing. • Carpet joining and edging.
3162	**Standard grade** – higher adhesion level **waterproof cloth tape**	0.23	35	6.0	
3120	**Mid range** grade PE coated **waterproof cloth tape** – range of colours	0.3	48	4.0	• Duct sealing – covering joints in hot air and insulating material. • Fixing and holding of wires and cables. • Masking applications. • Carpet joining and edging. • Colour coding and identification. • Joining and splicing applications.
3101	**Premium grade waterproof cloth tape** – range of colours	0.3	78	4.4	• Heavy duty and export packing. • Sealing, protecting and strengthening general purpose applications. • Carpet jointing. • Colour coding and identification. • Joining and splicing applications. • Ideal for technical or demanding applications.
1200	**Premium grade waterproof cloth tape** – range of colours	0.28	100	3.7	• Protection during light sandblasting. • Securing of items during production processes. • Edging and finishing applications.

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Cloth Tapes – Key Features & Benefits

- Durable and strong
- Easy tear by hand
- Good service temperature range
- Good water resistance
- Good tack and ultimate adhesion
- Colour range options for most products

OTHER SPECIALIST ADHESIVE TAPES

CODE	DESCRIPTION	THICKNESS (mm)	TENSILE STRENGTH (N/cm)	ADHESION TO STEEL (N/cm)	APPLICATION INFORMATION
FOIL TAPES					
330	**Linerless aluminium foil** – 75 micron	0.13	35	4.0	• Masking during painting, galvanising and refinishing processes. • Masking for sandblasting and powder finishing. • Temporary repair of aluminium structures. • Splicing of aluminium sheeting.
336	**Soft aluminium foil** – 48 micron	0.11	25	6.0	• High temperature insulation. • High pressure steam pipe insulation. • For use as a heat deflector. • Repair and protection applications.

Foil Tapes – Key Features & Benefits

- Soft and conformable for ease of use in application.
- Good chemical resistance.
- Suitable for use over a wide range of low and high temperatures.

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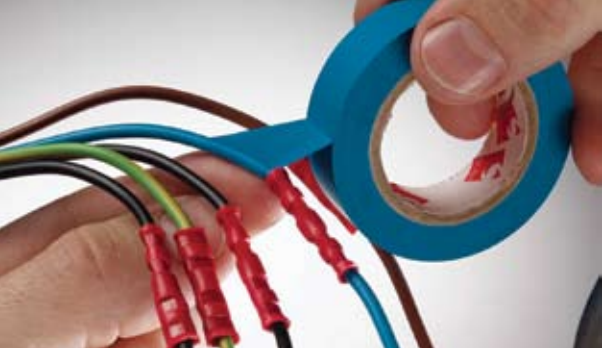


Electrical Tapes

As the largest European manufacturer of plasticised PVC adhesive tapes, Scapa make products that meet and exceed internationally recognised specifications and standards. Combined with our comprehensive range of self-amalgamating tapes and putties, Scapa offers a tape for all your electrical needs.

Scapa PVC electrical tapes are strong, flexible and conformable, combining ease-of-use with reliability, so whether you're insulating, joining, identifying, binding, waterproofing, repairing, sealing, or marking, Scapa has the right tape for your specific cable application.

PVC ELECTRICAL TAPES

CODE	DESCRIPTION	THICKNESS (mm)	TENSILE STRENGTH (N/cm)	ADHESION TO STEEL (N/cm)	APPLICATION INFORMATION
2701	**PVC general-purpose** adhesive tape - range of colours	0.13	25	1.5	• Cable bundling. • Colour coding. • Duct sealing. • General-purpose splicing. • Harnessing. • Primary electrical insulation up to **600 volts.**
2702	**PVC premium grade electrical** adhesive tape - range of colours	0.13	25	1.8	• Primary electrical insulation. • Protection for **LV** and **MV.** • Cable splices. • Colour coding. • Industrial applications.
6022	**PVC premium grade electrical** adhesive tape - range of colours	0.15	30	1.8	• Colour coding for identification as well as for insulation of electrical wires and cables. • Applied on the phases of **LV** cables on data and telecommunication cables as well as water and gas pipes. • Wrapping and colour coding of harnesses. • Mechanical protection of the joint.
2705	**PVC heavy duty electrical** adhesive tape - range of colours	0.2	35	1.8	• Insulation and harnessing applications. • Primary electrical insulation. • Harnessing. • Protection for **LV** and **MV** cables splices. • Typically engineered for the professional requirements of telecom and electricity boards.
2708	**PVC electrical premium grade** adhesive tape - range of colours	0.25	44	1.8	• Heavy duty anti-corrosive protection tape for all ducts, pipelines and tubes. • Primary electrical insulation. • Protection for **LV** and **MV** cables splices. • Typically engineered for the professional requirements of telecom and electricity boards.
6157	**PVC electrical adhesive tape**	0.20	35	1	• Harnessing and binding of wires and electrical cables. • Insulating of electrical wires and cables. • Reconstitution of insulating screens of electrical cables.

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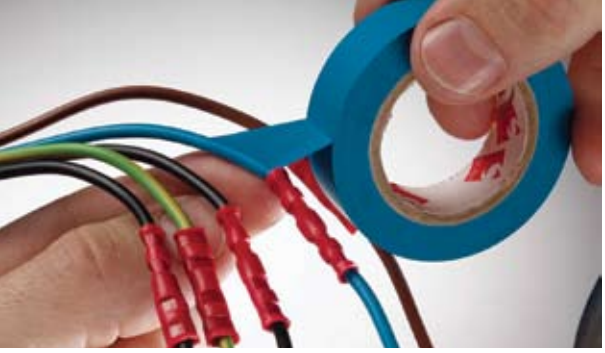


Electrical Tapes – Key Features & Benefits

- Offer good abrasion and corrosion resistance
- Good dielectric strength and mechanical protection levels
- Conformable and flexible
- Conform to RoHS (heavy metals free)
- Good service temperature range

OTHER FILMIC ADHESIVE TAPES

CODE	DESCRIPTION	THICKNESS (mm)	TENSILE STRENGTH (N/cm)	ADHESION TO STEEL (N/cm)	APPLICATION INFORMATION
2721	**PVC premium grade lane marking** adhesive tape – range of colours	0.16	25	1.5	• Colour coding. • Floor and lane marking. • General splicing.
2724	**PVC hazard warning tape** – striped colours only	0.16	25	2.0	• Hazard warning and safety tape. • Identification of potential danger areas.
2901	**Polyethylene adhesive tape** – 4 colours	0.15	18	3.5	• Used to mechanically protect the joint. • Sealing for taped joints. • Electrical insulation for all applications. • Used in pressurised telecommunication resin injected splices. • General-purpose applications such as tin sealing, identification and general packaging.
2907	**Polyethylene pipe wrapping tape** – black or white	0.205	255	47	• Pipeline protection against corrosion and mechanical damage. • Joining polyethylene sheeting. • Heavy duty sealing.
7020	**Polypropylene/glass fibre** adhesive tape – transparent	0.13	250	7	• Reinforced layer during the injection of resin for LV and MV joints. • Binding of resin injected joints, pre-moulded parts and three phase joints.

Filmic Tapes – Key Features & Benefits

Lane marking/hazard warning tapes

- Suitable for both indoor and protected outdoor environments.
- Easy transversal tear.
- High abrasion, moisture and corrosion resistance.

Polyethylene tapes

- Excellent electrical properties.
- Resistant to moisture and many other chemicals.
- Improved UV resistance in black colour option.

Polypropylene tapes

- Very high mechanical strength.
- High tack and strength.
- Good binding action.

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