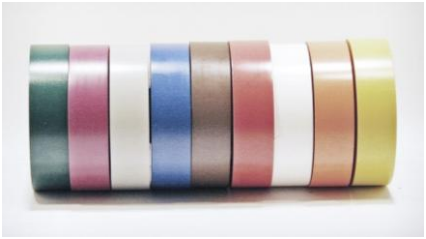
Plymouth

Plymouth Rubber Europa, S.A.



Premium 37

Professional Grade Vinyl Electrical Tape

Technical Data Sheet **April 2017**

Description and Features

A 0,18 mm (7 mil) all weather, professional grade, pressure sensitive vinyl tape which applies easily and gives excellent performance over a wide range of temperatures. Cold and weather resistant. Flame retardant. Premium 111 can be used as primary insulation for splices up to 600 Volts. Use as protective outer jacket over splices and for all low temperature applications.
Cold and weather resistant

- Flame retardant
- High dielectric strength
- Highly elastic
- Highly conformable
- High UV resistance
- High resistant to sun, water, oil, acids, alkalis, corrosive chemicals.
- Meets ASTM D-3005, Type I; EN 60454-3-1, Type 11; UL 510; CSA C 22.2 no. 197; RoHS Directive

Materials

Backing	Adhesive	Colour	Standard Roll
PVC	Rubber based	Red, White, Blue, Yellow, Orange, Violet, Brown, Gray, Green	19mmx0,18mmx20 m Other Sizes available upon request

Technical Properties

Characteristic	Specification	Typical Value	Test Method
Thickness, (mm)	0,18±0,025	0,175	ASTM D 1000
Breaking strength (N/cm)	26 min	30	ASTM D 1000
Elongation at break (%)	220 min	260	ASTM D 1000
Adhesion to steel (N/cm)	1,8 min	2,2	ASTM D 1000
Adhesion to backing (N/cm)	1,8 min	2,2	ASTM D 1000
Flammability (seconds)	4 max	0	ASTM D 1000
Flagging (mm)	3 max	0	ASTM D 1000
Temperature Rating (ºC)			
Maximum		80	UL510
		105	CSA C 22.2 no.197
Minimum		-10	UL510
		-18	CSA C 22.2 no 197
Dielectric Strength (kV)			ASTM D 1000
-Standard	7 min	8	ASTM D 1000
-Wet	90%	7,2	ASTM D 1000
Dielectric Constant		3,2	ASTM D 150
Insulation Resistance (MΩ)		$1x10^6$	ASTM D 1000

Recommended Uses

Used for general splicing purposes. Can be used as primary insulation for splices up to 600 Volts. Provide a protective outer jacket over splices for all low temperature applications. Can be used for wrapping wire harnesses, and insulating degaussing coils.

Storage

In original packaging, placed in horizontal position under cover and temperature between 5-35 ºC and 50-80% R.H.

Shelf Life

60 months from date of manufacture.

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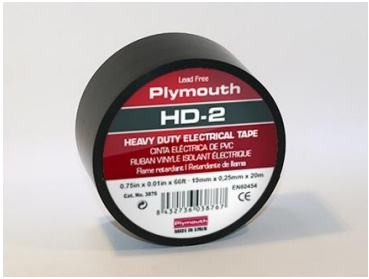

HD2

Heavy Duty

Vinyl Electrical Tape

Technical Data Sheet **April 2017**

Description and Features

A 0,25 mm heavy duty, general purpose, pressure sensitive vinyl tape for all types of mechanical and electrical applications. Additional thickness allows for quicker build-ups and added abrasion protection. HD2 is flame retardant and can be used as primary insulation for splices up to 600 volts.

- 0,25 mm thickness
- High dielectric strength
- Flame retardant
- Highly resistant to sun, water, oil, acids, alkalis, corrosive chemicals
- Lead free
- Meets UL 510, CSA C 22.2 no. 197, MIL I 7798A, ASTM D 2301.
- Product does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).

Materials

Backing	Adhesive	Colour	Standard Roll
PVC	Rubber based	Black	50mmx0.25mmx33m 38mmx0.25mmx33m

Technical Properties

Characteristic	Specification	Typical Value	Test Method
Thickness, (mm)	0,25±0,03	0,25	ASTM D 1000
Breaking strength (N/cm)	44 min	48	ASTM D 1000
Elongation at break (%)	250 min	250	ASTM D 1000
Adhesion to steel (N/cm)	2,6 min	3,0	ASTM D 1000
Adhesion to backing (N/cm)	2,6 min	2,8	ASTM D 1000
Flammability (seconds)	4 max	0	ASTM D 1000
Flagging (mm)	2,5 max	0	ASTM D 1000
Temperature Rating (ºC)			
Maximum		80	UL510
		105	CSA C 22.2 no.197
Minimum		-10	UL510
		-18	CSA C 22.2 no 197
Dielectric Strength (kV)	9,5	10	ASTM D 1000

Recommended Uses

Used for general splicing purposes. Can be used as primary insulation for splice up to 600 volts and provides a protective outer jacket where maximum mechanica protection is required.

Storage

In original packaging, placed in horizontal position under cover and temperature between 5-35 ºC and 50-80% R.H.

Shelf Life

60 months from date of manufacture.

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Plymouth Rubber Europa, S.A.

PLYFILL®

Electrical Filler Insulating Mastic

Technical Data Sheet — April 2017

Description and Features

PLYFILL® is a 3,2 mm self-amalgamating mastic for insulating and sealing all types of overhead and direct buried electrical connections up to 600 volts. PLYFILL® has superior adhesion to metals, cable insulations and jackets. It will have no adverse effects on polymeric conducting shields. **PLYFILL®** provides an excellent water seal for duct work, cable ends and all types of splices. **PLYFILL®** is normally over wrapped with vinyl tape.

- Superior adhesion to metal, all types of cable insulations and jackets.
- Excellent thermal stability.
- Resistant to water, salt water, soil and corrosive chemicals.
- Will not adversely affect cable insulations or polymeric conductive shields.

Materials	**Backing**	**Adhesive**	**Colour**	**Standard Sizes**
		Mastic	Black	Widths x Lengths 38 mm x 1,5 m other sizes are available upon request

Technical Properties	**Characteristic**	**Typical Value**	**Test Method**
	Thickness (mm)	3,2	ASTM D 4325
	Operating temperature (ºC)		
	Continuous[1]	90	ASTM D 4325
	Emergency overload	130	ASTM D 4325
	Water absorption (%)	0,10	ASTM D 570
	Copper corrosion (visual)	None	ASTM D 69
	Ozone resistance (visual)	Pass	ASTM D 4325
	Dielectric strength[2] (kV/mm)	20	ASTM D 4325
	Dielectric constant	3,2	ASTM D 4325
	Dissipation factor	0,025	ASTM D 4325
	Volume resistivity (Ω.cm)	$3x10^{14}$	ASTM D 4325

Recommended Uses

For encapsulating and protecting all types of low voltage connection and devices, overhead connections, duct seals and cable ends seals.

Storage

In original packaging, placed in horizontal position under cover and temperature between 5-35 ºC

Shelf Life

60 months from date of manufacture.

Information provided is for reference only. Data in table represent average test results and are not to be used for specification purposes. The product user should make his/her own tests to determine the product's suitability for the intended use

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Plymouth

Plymouth Rubber Europa, S.A.

Premium 111

Professional Grade Vinyl Electrical Tape

Technical Data Sheet **April 2017**

Description and Features

A 0,18 mm (7 mil) all weather, professional grade, pressure sensitive vinyl tape which applies easily and gives excellent performance over a wide range of temperatures. Cold and weather resistant. Flame retardant. Premium 111 can be used as primary insulation for splices up to 600 Volts. Use as protective outer jacket over splices and for all low temperature applications.
Cold and weather resistant

- Flame retardant
- High dielectric strength
- Highly elastic
- Highly conformable
- High UV resistance
- High resistant to sun, water, oil, acids, alkalis, corrosive chemicals.
-
- Meets ASTM D-3005, Type I; EN 60454-3-1, Type 11; UL 510; CSA C 22.2 no. 197; RoHS Directive
- Pb, Cd, Hg, Cr (VI) free

Materials

Backing	Adhesive	Colour	Standard Roll
PVC	Rubber based	Black	19mmx0,18mmx20 m Other Sizes available upon request

Technical Properties

Characteristic	Specification	Typical Value	Test Method
Thickness, (mm)	0,18±0,025	0,175	ASTM D 1000
Breaking strength (N/cm)	26 min	30	ASTM D 1000
Elongation at break (%)	220 min	260	ASTM D 1000
Adhesion to steel (N/cm)	1,8 min	2,2	ASTM D 1000
Adhesion to backing (N/cm)	1,8 min	2,2	ASTM D 1000
Flammability (seconds)	4 max	0	ASTM D 1000
Flagging (mm)	3 max	0	ASTM D 1000
Temperature Rating (ºC)			
Maximum		80	UL510
		105	CSA C 22.2 no.197
Minimum		-10	UL510
		-18	CSA C 22.2 no 197
Dielectric Strength (kV)			ASTM D 1000
-Standard	7 min	8	ASTM D 1000
-Wet	90%	7,2	ASTM D 1000
Dielectric Constant		3,2	ASTM D 150
Insulation Resistance (MΩ)		$1x10^6$	ASTM D 1000

Recommended Uses

Used for general splicing purposes. Can be used as primary insulation for splices up to 600 Volts. Provide a protective outer jacket over splices for all low temperature applications. Can be used for wrapping wire harnesses, and insulating degaussing coils.

Storage

In original packaging, placed in horizontal position under cover and temperature between 5-35 ºC and 50-80% R.H.

Shelf Life

60 months from date of manufacture.

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Plymouth Rubber Europa, S.A.

W963 PLYSAFE®

EPR High Voltage Tape

Technical Data Sheet **April 2017**

Description and Features

W963 Plysafe® is a 30 mil (0,76mm) ethylene propylene rubber, self-amalgamating high voltage tape for insulating and jacketing splices though 69kV. **W963 Plysafe®** amalgamates quickly, yielding a void-free, electrically stable build-up and is ideal for water-proofing. ASTM-D-4388, HH-I-553C/Grade A, MIL-I3825B.

- Self amalgamating
- Outstanding corona and ozone resistance
- UV resistance
- Excellent moisture, corrosion and chemical resistance
- Resistant to animal and vegetal oil and greases, PAGs, phosphate esters, PIBs and silicone oils.

Materials

Backing	Adhesive	Colour	Standard Roll
EPR Rubber		Black	Length, 5/9,1/10m Width, 19/25/38 mm Other sizes are available upon request

Technical Properties

Characteristic	Typical Value	Test Method
Thickness, (mm)	0,76	ASTM D 4325
Breaking strength (MPa)	2,3 min.	ASTM D 412
Elongation at break (%)	950 min.	ASTM D 4325
Fusion (mm)	2 Max	ASTM D 4325
Heat Resistance (ºC)	130	ASTM D 4325
Continuous Operating Temp.(ºC)	90	ASTM D 4325
Emergency Overload (ºC)	130	ASTM D 4325
Water Absorption (%)	0,06	ASTM D 570
Ozone Resistance	Pass	ASTM D 4325
UV Resistance	Pass	ASTM D 4325
Dielectric Strength (kV/mm)	39,5	ASTM D 149
Dissapation Factor		
24h @ 23ºC	0,005	ASTM D 4325
168h @ 70ºC	0,015	ASTM D 4325
Dielectric Constant:		
24h @ 23ºC	2,7	ASTM D 4325
168h @ 70ºC	2,9	ASTM D 4325
Volume Resistivity (Ω.cm)		
96h @ 23ºC and 50% RH	$1x10^{16}$	ASTM D 257
96h @ 23ºC and 96% RH	$1x\ 10^{13}$	ASTM D 257

Recommended Uses

For insulating and jacketing of splices on power cable from 600 volts through 69,000 volts and for building stress cones and for jacketing of terminations on power cable through 35000 volts. Provides a moisture seal for all water-proofing needs and insulations and protects bus components. Due to its highly stable mechanical and chemical properties, W963 Plysafe is ideal for cable jacket repair and restoration.

Storage

In original packaging, placed in horizontal position under cover and temperature between 5-35 ºC.

Shelf Life

60 months from date of manufacture.

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Plymouth Rubber Europa, S.A.

Rubber Mastic (RM)

Self-Bonding Mastic Tape

Technical Data Sheet **May 2020**

Description and Features

Rubber mastic is a self-bonding mastic tape consisting of an ethylene propylene rubber (EPR) backing, bonded to a tacky temperature stable, electrical grade mastic. Use for insulating and moisture sealing splices and terminations on solid dielectric cable. Provides excellent electrical properties, superior adhesion, moisture and chemical resistance. For primary insulation up to 35kV, as indicated in drawing BBI-1.

- Excellent electrical properties
- Superior adhesion
- UV resistant.
- Moisture, corrosion, and chemical resistant
- Suitable for direct burial and overhead applications

Materials

Backing	Adhesive	Color	Standard Sizes
EPR	Mastic	Black	Width x Length 38 mm x 3 m (1,5" x 10') 51 mm x 3 m (2,0" x 10') Other sizes available upon request

Technical Properties

Characteristic	Typical Value	Test Method
Thickness (mm)	1,65	ASTM D 4325
Elongation (%)	890	ASTM D 412
Operating temperature:		
Continuous (ºC)	90	ASTM D 4325
Emergency overload (ºC)	130	ASTM D 4325
Water absorption (%)	0,10	ASTM D 570
Copper corrosion (visual)	None	ASTM D 69
Ozone resistance (visual)	Pass	ASTM D 4325
UV Resistance	Pass	ASTM D 4325
Dielectric strength (kV/mm)	20	ASTM D 149
Dielectric constant	3,2	ASTM D 150
Dissipation factor	0,025	ASTM D 150
Volume resistivity (Ω.cm)	$1x10^{15}$	ASTM D 257
Insulation Resistance (MΩ)	$>1x10^{6}$	ASTM D 257

Recommended Uses

Use for insulating and moisture-sealing splices and terminations on solid dielectric cable. Can be wrapped, stretched or molded around irregular shapes for insulation build up, water sealing and surface protection. Ideal for Bus Bar insulation and corrosion protection.

Storage

In original packaging, placed in horizontal position under cover and temperature between 5ºC and 35 ºC.

Shelf Life

60 months from date of manufacture.

Information provided is for reference only. Data in table represent average test results and are not to be used for specification purposes. The product user should make his/her own tests to determine the product's suitability for the intended use

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ISO 9001:2015 & IATF 16949:2016 Certified

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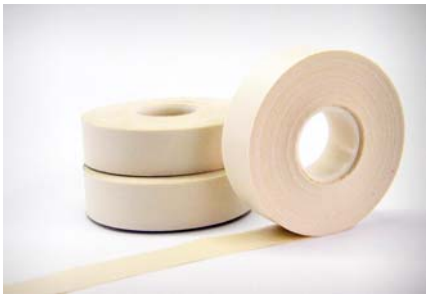

77 PLYGLAS®

Glass Cloth Tape

Technical Data Sheet **October 2017**

Description and Features

77 PLYGLAS® is a woven glass fabric tape with a thermosetting rubber based pressure-sensitive adhesive. It has high tensile strength, and provides excellent tear and abrasion resistance with a service temperature rating of 130 ºC.

- High temperature resistant
- Service temperature of 130 ºC
- High mechanical strength
- Thermosetting adhesive
- Abrasion resistant.

Materials

Backing	Adhesive	Color	Standard Size Width x Length
Glass cloth	Rubber based	White	19 mm x 20 m (0.75 in. x 66 ft.) Other sizes available upon request

Technical Properties

Characteristic	Typical Value	Test Method
Thickness (mm)	0,18	ASTM D-1000
Tensile strength (N/cm)	300	ASTM D-1000
Elongation at break (%)	5	ASTM D-1000
Adhesion to Steel (N/cm)	1,7	ASTM D-1000
Dielectric breakdown (kV)	2,5	ASTM D-1000
Insulation resistance (MOhm)	5000	ASTM D-1000

Recommended Uses

For insulating and protecting high temperature connections on solid dielectric cable thru 600 volts. Securing 53 Plyarc, Arc and Fire Proofing Tape, where adhesion at high temperatures is required. Binding and harnessing applications.

Storage

In original packaging, placed in horizontal position under cover and temperature between 5ºC and 35 ºC.

Shelf Life

36 months from date of manufacture.

Information provided is for reference only. Data in table represent average test results and are not to be used for specification purposes. The product user should make his/her own tests to determine the product's suitability for the intended use

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ISO 9001:2008 & ISO TS16949:2009 Certified

Plymouth **Rubber Europa, S.A.**

TECHNICAL DATA SHEET

ADHESIVE TAPE **N-15**

MATERIALS

Backing (base) material	Plasticized PVC film
Colours	Black, White, Grey, Red, Yellow, Brown, Green, Blue

DESCRIPTION AND FEATURES

- Tape with good adhesion level and mechanical resistance.
- Meets the requirements of 2000/53/EC and RoHS 2011/65/UE Directives. Product does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).
- Meets EN 60454-3-1

TECHNICAL PROPERTIES

CHARACTERISTIC	TEST METHOD	SPECIFICATION	TYPICAL VALUE
Thickness (mm)	ASTM D 1000	0,18 ± 0,025	0,17
Width (mm)	”	Nominal ± 1	- - -
Adhesion to steel (N/cm)	”	Minimum 1,8	2,8
Adhesion to backing (N/cm)	”	Minimum 1,8	2,6
Breaking strength (N/cm)	”	Minimum 30	33
Elongation at break (%)	”	Minimum 170	220
Flammability	”	Self-extinguishing	Self-extinguishing
Dielectric breakdown (kV)	EN 60454-2	Minimum 7	8
Temperature rating (^{o}C)	3000 Hours	105	Conforms

FORM OF DELIVERY

Standard sizes: Length, 20 and 33 m
Width, 19 and 25 mm
Core diameter, 38 mm

Other sizes are available upon request.

Revised May 2013

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