

E-MOBILITY

ABOUT ISOVOLTA

The ISOVOLTA GROUP stands for innovative products, visionary approaches and international production facilities.

Since 1949 our partners from more than 20 industries rely on ISOVOLTA's broad product portfolio with customized product developments. The passion for the combination of various materials with unique

properties to superior technical laminates and composites let the ISOVOLTA GROUP become to a leading international player of the industry.

Combination of properties

ISOVOLTA's laminates allow to unite required properties of various materials in one product.
e.g. electrical insulation + thermal conductivity + mechanical strength

Electrical Insulation Layer

Thermal Conductive Layer

Mechanical Strength Layer

ONE STOP SHOP

1 Semi-finished materials

- Lamination
- Impregnation
- Coating
- Composites

2 Converting

- Punching
- Slitting
- Folding
- Machining
- Kit of parts

3 Testing

- Electrical
- Mechanical
- Thermal
- Chemical

4 Training

- Insulation material
- Insulation systems

AUXILIARY DRIVES

Electrical insulation

E-MOTOR

Electrical insulation

BATTERY

Electrical insulation
Thermal management

All information given here is based on currently available facts and on the results of experiments performed with all due care in our laboratories. It does not in any way reduce the responsibility of the user for carrying out further tests in order to ensure successful processing and use in specific applications.

TAILOR-MADE SOLUTIONS FOR ELECTRICAL VEHICLES

The variety of ISOVOLTA's laminates ...

- Mica
- Adhesives
- Various films
- Nomex aramid paper
- Glass fabrics
- Fleeces
- Glass mats

ISOVOLTA's laminates could be delivered as ...

- Fully cured materials
- Prepregs
- Including adhesive layers

Having superb properties as ...

- Electrical insulation up to 20kV
- Thermal conductivity 0.05 up to 6W/m*K
- CTI 600
- Mechanical strength



Product	Type	Thickness	Thermal Conductivity	Maximum Temperature	Flammability	Tensile Strength	Density	Dielectric Strength
		mm	W/mK at room temperature	°C		Mpa	g/cm ³	kV/mm at room temperature

THERMIGA P 9003 rigid 0.100-75.000 0.14-0.24 800-1000 UL94 V0 ≥ 100 1.6-2.3 ≥ 15

THERMIGA P 9011* flexible 0.160 0.12 1000 UL94 V0 ≥ 100 1.33 ≥ 1.6

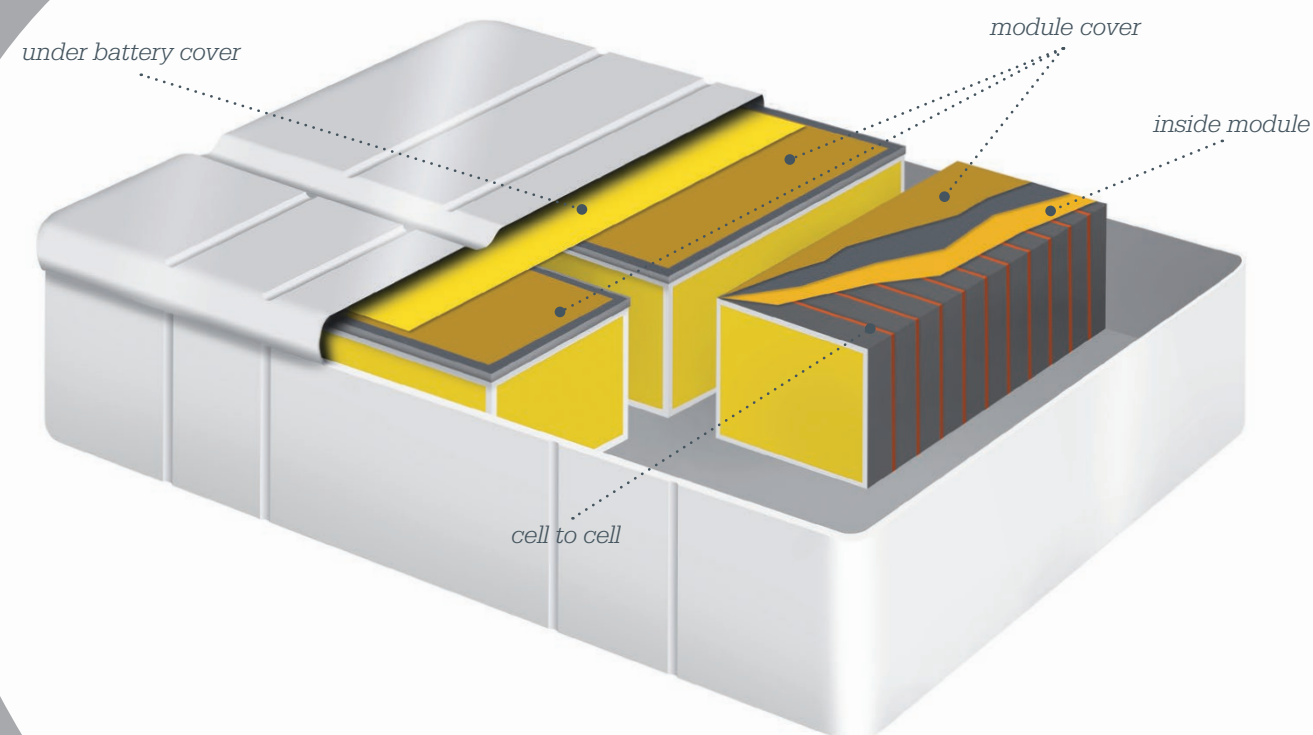
THERMIGA P 9026* flexible 0.200 0.11 1000 UL94 V0 ≥ 100 TBA ≥ 9

* available with adhesive layers

Product	Type	Thickness	Thermal Conductivity	Maximum Temperature	Flammability	Tensile Strength	Adhesive	Dielectric Strength
THERMIGA P 9001	flexible	0.110	0.131	105		MD > 70 TD > 90	double sided	> 10
THERMIGA P 9001	flexible	0.135	0.131	105		MD > 60 TD > 90	double sided	> 12
THERMIGA C 9008	flexible	0.085	TBA	> 200	UL94 VTM-0	MD > 40 TD > 40	double sided	> 5
THERMIGA C 9008	flexible	0.110	TBA	> 200	UL94 VTM-0	MD > 80 TD > 80	double sided	> 10
THERMIGA P 9027	flexible	0.080	TBA	> 190	UL94 VTM-0	MD > 50 TD > 50	one sided	> 8
THERMIGA P 9028	flexible	0.080	0.131	105		MD > 70 TD > 90	one sided	> 10
THERMIGA P 9028	flexible	0.110	0.131	105		MD > 60 TD > 90	one sided	> 12

product modifications on request

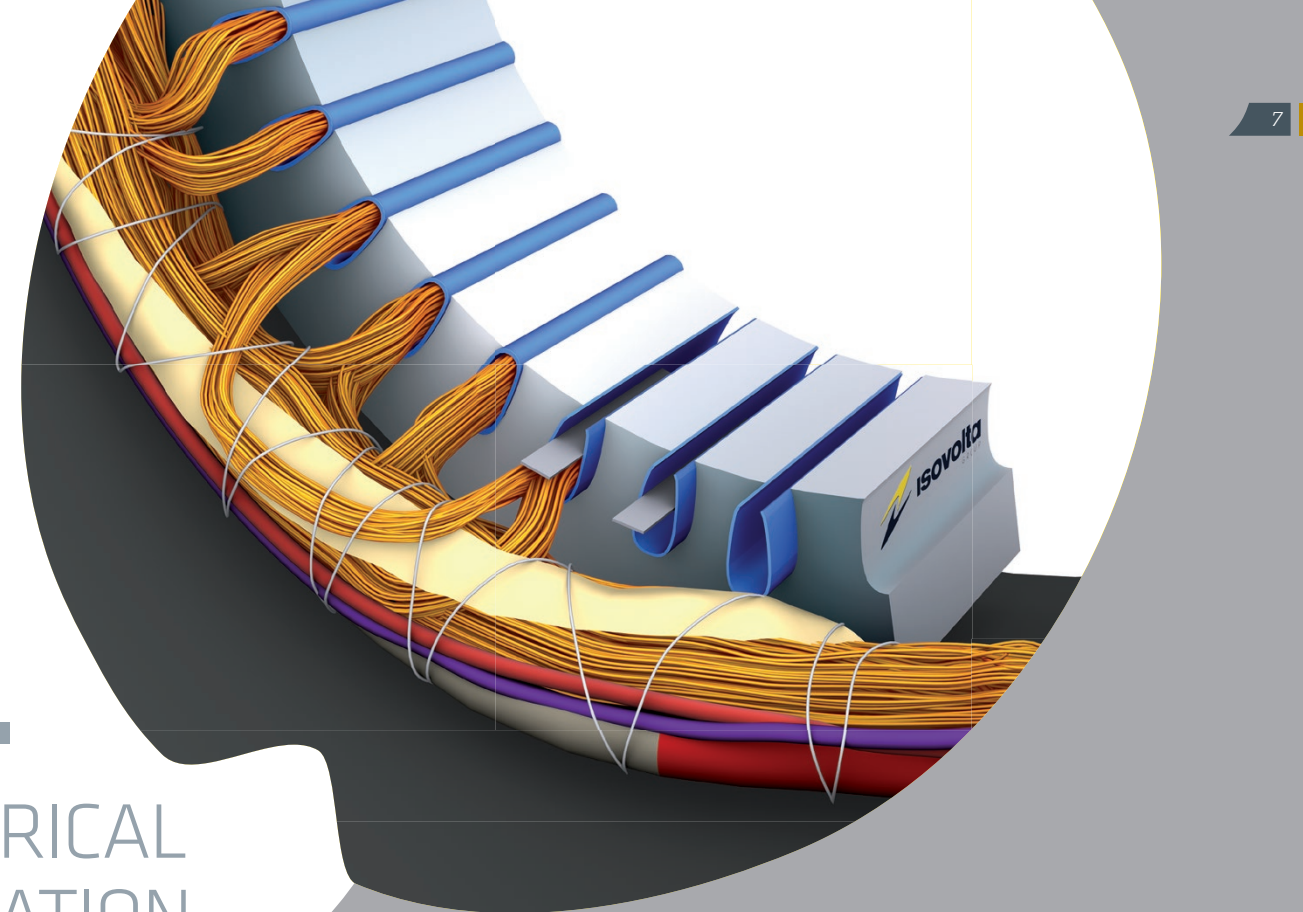
THERMAL MANAGEMENT MATERIALS



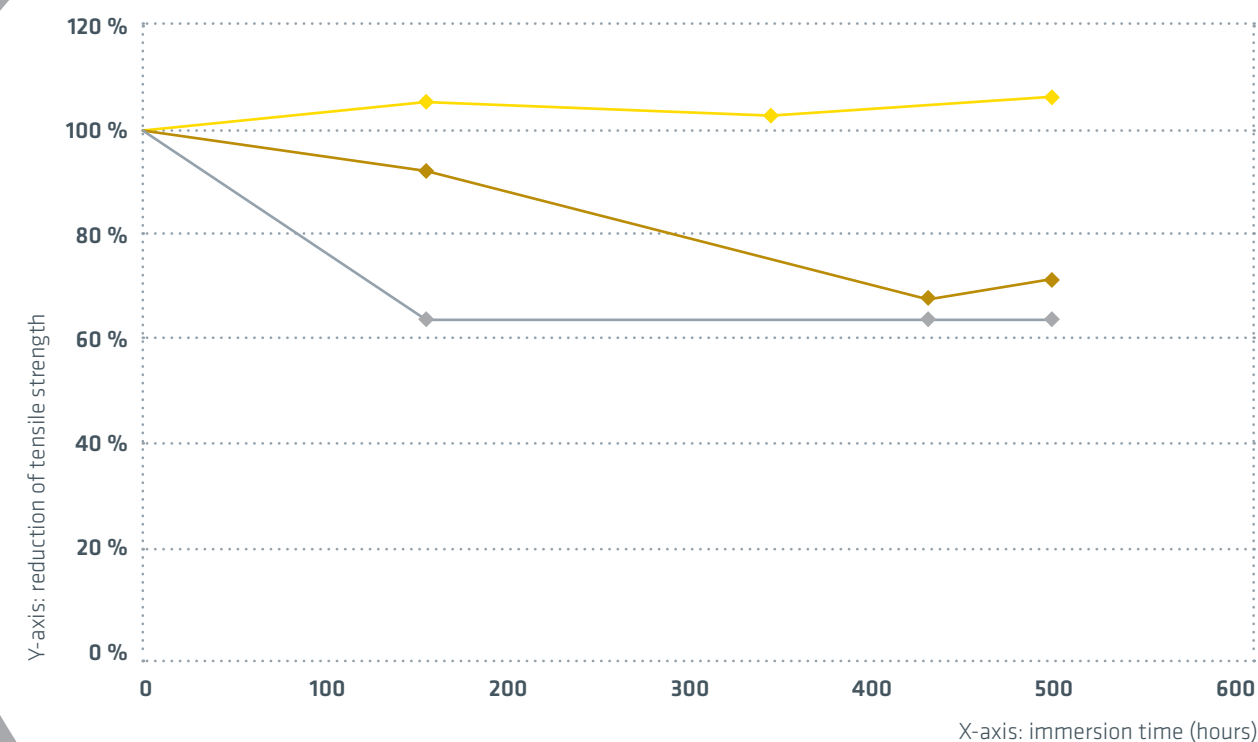
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Product	Type	Materials	Thickness range	Temperature range	ATF resistant	Application
			mm	°C		
ISONOM® NMN 0881	flexible	Nomex® + PET	0.14-0.48	180	x	Slot and Phase Insulation
ISONOM® NMN 8 0883	flexible	Nomex® + PET	0.19-0.53	180	x	Slot and Phase Insulation
ISONOM® NXN 3322	flexible	Nomex® + PEN	0.13-0.37	180	x	Slot and Phase Insulation
ISONOM® NKN 0885	flexible	Nomex® + PI	0.15-0.23	200	⚡	Slot and Phase Insulation
ISONOM® NKN 8 0886	flexible	Nomex® + PI	0.20-0.30	200	⚡	Slot and Phase Insulation
ISOVAL® TM	rigid	EP GC 308	0.2-160	180	x	Slot Wedge, Insulation Parts, Spacer
ISOVAL® 11 HKB	rigid	EP GC 306/308	0.2-160	180	x	Slot Wedge, Insulation Parts, Spacer
GX 11.3408.878578	rigid	EP GM 203/305	1-80	180	x	Slot Wedge, Insulation Parts, Spacer
MAGNOVAL® 2067	rigid	-	2-10	155	x	Magnetic Slot Wedge
MAGNOVAL® 2232	rigid	-	2-10	180	x	Magnetic Slot Wedge
VOLTIS® PE 203	rigid	-	2-80	155	x	Slot Wedge, Insulation Parts, Spacer

ELECTRICAL INSULATION MATERIALS



*ATF resistance
Tensile strength after immersion in oil at 150 °C*



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LOCATIONS



www.isovolta.com



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