



GEL CONNECTION

GEL COVER LINE



Electrical performance:

CEI EN 50393 with connectors complying with EN 61238-1 (with testing under water head and water between the cable cores)
Class 2 in accordance with CEI 64-8.

Gel: UL 94-HB

Operating temperature

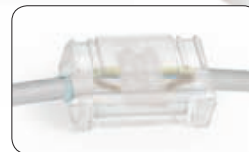
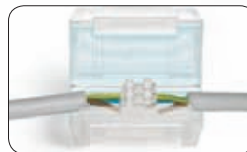
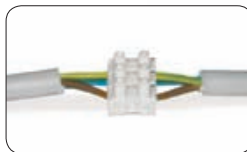
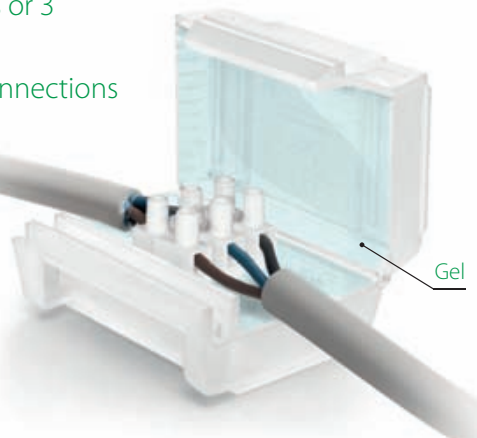
Installation temperature: -40°C / +50°C

IPX8
OFFICIALLY
TESTED **IMQ**

Gel Cover Line

Pre-filled gel accessories for straight connections, for the protection, safety and covering of electrical connections using strip connectors or alternatives.

- For 3 x 1 to 6 mm² cables or 3 insulated wires
- For civil and industrial connections
- To put household systems in order
- Also for underwater use
- Non-toxic and with no shelf life
- Halogen free
- UV resistant



OHM & BAR



Product	Housed connectors type	Pieces for package	Package type	Dimensions A x B x C (mm)
OHM	2 from 4 mm ²	1	blister	61 x 35 x 28
OHMp11		11	box	
BAR	3 from 4 mm ² / 6 mm ²	1	blister	63 x 41 x 28
BARp9		9	box	



**Ray
Tech**

Mammut Gel Cover

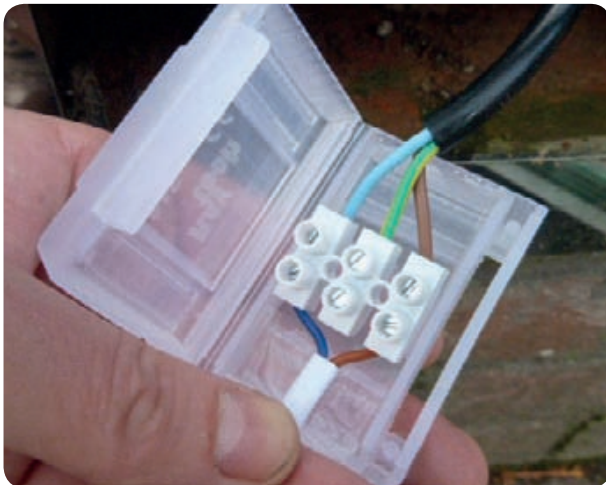


Product	Housed connectors type	Pieces for package	Package type	Dimensions A x B x C (mm)
Gel Cover 4	2 from 4 mm ²	1	blister	61 x 35 x 28
Mammut Gel Cover		8	box	
Gel Cover 6	3 from 4 mm ² / 6 mm ²	1	blister	63 x 41 x 28
Mammut Gel Cover 6		6	box	

No flame propagation. CEI 20-35 • IEC 60332-1 • HD405-1 (as applicable). **Casing mix:** UL 94-V2



Installation examples





G4J - gel for prefilled joints

G4J is a Polymeric Gel on elastomeric cross linked base, chemically inert and absolutely no toxic.



G4J is UL Recognized Component

For additional information see the UL Online Certifications Directory at
www.ul.com/database

G4J is used for the filling of **all RAYTECH PREFILLED joints**:

HAPPY and **HAPPY JOINT**, **GEL BOX LINE (ISAAC, PASCAL, KELVIN, WATT, JOULE)**, **GEL COVER LINE (Ohm, Bar, Mammut Gel Cover)** in all packing options;

NANO JOINT, **NANO MAM** and **NANO FOR**, **BRAVO** and **MINI BRAVO**,

LITTLE JOINT (BARNEY and FRED) in all packing options,

READY BOX IP68,

SUPER CLIK, **RAPID JOINT IP68**, **KING JOINT**, **RAPID JOINT**, **CLIK FIRE**,

GALACTIC MAMMUT SECURITY, **GALACTIC NANO JOINT**,

MCA UNIVERSAL IP68 and **MCA-Y**.

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Colour			Clear and transparent
Density	ASTM D792	Kg/dm ³	0,97
Thermal conductivity	DIN 52612	W/mK	0,2
Working temperature		°C	150
Max thermal stability temperature (without physical variations)		°C	=> 200°C
Coefficient of linear expansion		K-1	2,9 .10 exp-14
Penetration: Initial After aging	ASTM D 217/C	x 0,1 mm	340 290
Dielectric strength	DIN 53481	kV/mm	25
Volume resistivity		Ω cm	2,4 x 10exp 15
Permittivity	DIN 53483		2,95 at 100 Hz 2,95 at 100 kHz
Power factor			0,0025 at 100Hz 0,00015 at 100 kHz

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POLYPROPYLENE AUTOESTINGUENTE - UL94 V2

- Raw material for the moulding of the following lines of enclosures:
- Materia prima per lo stampaggio dei seguenti accessori:
 - **Gel Box Line, ISAAC, PASCAL, WATT, KELVIN, JOULE** with coloured casing
Gel Box Line, ISAAC, PASCAL, WATT, KELVIN, JOULE con involucri colorati
 - **MAMMUT GEL COVER**
 - **NANO JOINT**
 - **NANO MAM , NANO FOR**
 - **LITTLE JOINT (FRED, BARNEY)**
 - **SUPER CLIK**
 - **RAPID JOINT IP68**
 - **KING JOINT**
 - **RAPID JOINT**
 - **CLIK FIRE**
 - **MAGIC JOINT FIRE**
 - **RAPID JOINT IP68 SYSTEM FAST RP**
 - **GALACTIC MAMMUT SECURITY**
 - **GALACTIC NANO JOINT 4**
 - **MCA Universal IP68**
 - **MCA-Y**

PROPERTIES - <i>Proprietà</i>	METHOD <i>Metodo</i>	UNIT <i>Unità</i>	TYPICAL VALUE <i>Valore tipico</i>
• GENERAL – generali			
Density <i>densità</i>	ASTM D-792	g/ml	0.93
Melt volume rate 230°C/2.16Kg	ISO-1133	cm ³ /10 min	16.0
Linear modul shrinkage <i>Ritiro lineare</i>	ASTM D-955	%	1.5
Transversal mould shrinkage <i>Ritiro trasversale</i>	ASTM D-955	%	1.5
Water adsorption (24h-23°C) <i>Assorbimento acqua (24h-23°C)</i>	ASTM D-570	%	0.02
• THERMAL – Termiche			
Vicat B	ASTM D-1525	°C	80
HDT A	ASTM D-648	°C	55
Long term temperature <i>Temp. di utilizzo in continuo</i>	-	°C	75

• MECHANICAL - <i>Meccaniche</i>			
IZOD impact strength, notched <i>IZOD con intaglio</i>	ISO-180/1A	KJ/m ²	9
IZOD impact strength, unnotched <i>IZOD senza intaglio</i>	ISO-180/1U	KJ/m ²	NB
Tensile strength <i>Carico a trazione</i>	ASTM D-638	MPa	20
Tensile elongation at break <i>Allungamento a rottura</i>	ASTM D-638	%	>100
Tensile modulus <i>Modulo elastico trazione</i>	ASTM D-638	MPa	1000
Flexural modulus <i>Modulo elastico a flessione</i>	ASTM D-790	MPa	-
Flexural strenght <i>Carico massimo a flessione</i>	ASTM D-790	MPa	-
• ELECTRICAL - <i>elettriche</i>			
Comparative tracking index CTI	IEC 60112	V	-
Surface resistivity <i>Resistività di superficie</i>	-	Ohm	-
• FLAME RESISTANCE - <i>Resistenza alla fiamma</i>			
Flame resistance (3.2 mm) <i>Resistenza alla fiamma (3.2 mm)</i>	UL94	-	V2
Flame resistance (1.6 mm) <i>Resistenza alla fiamma (1.6 mm)</i>	UL94	-	V2
Flame resistance (0.8 mm) <i>Resistenza alla fiamma (0.8 mm)</i>	UL94	-	V2
GWFI	IEC 60695-2-12	°C/mm	-
GWIT	IEC 60695-2-13	°C/mm	-

Settimo Milanese, 01/2018



POLYPROPYLENE RANDOM

- Raw material for the moulding of the enclosures (muffle) of following product lines:
Materia prima per lo stampaggio degli involucri (muffole) dei seguenti accessori:
HAPPY, HAPPY JOINT,
GEL BOX LINE (ISAAC, PASCAL, WATT, JOULE, KELVIN) with transparent casing/con involucri trasparenti
GEL COVER LINE (OHM, BAR) with transparent casing/con involucri trasparenti;
BRAVO, MINI BRAVO;
MAGIC POWER JOINT, MAGIC POWER JOINT System Plus, MAGIC POWER JOINT System Fast RP;
MAGIC JOINT, MAGIC JOINT System Plus, MAGIC JOINT System Fast RP;
RUBBER JOINT;
RAYCAST, RAYCAST System Plus, RAYCAST System Fast RP;
WONDER JOINT, WONDER JOINT System Plus.

PROPERTIES - Proprietà	METHOD Metodo	UNIT Unità	TYPICAL VALUE Valore tipico
• GENERAL - generali			
Density <i>densità</i>	ISO-1183	Kg/m ³	905
Melt Flow Rate 230°C/2.16Kg	ISO-1133	g/10 min	20
• THERMAL - Termiche			
HDT 0.45MPa	ISO-75	°C	69
• MECHANICAL - Meccaniche			
Charpy impact strength, notched <i>Charpy con intaglio</i>	ISO-179	KJ/m ²	6
Flexural modulus <i>Modulo elastico a flessione</i>	ISO-178	MPa	1100

Settimo Milanese, 05/01/2018 rev03