



## 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](http://www.ul.com/database)

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

**HAPPY** and **HAPPY JOINT** in all packing options;  
**GEL BOX LINE (ISAAC, PASCAL, WATT, JOULE, KELVIN)** in all packing options;  
**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, FRED, DINO, BARNEY Y, FRED Y, BOB4)** in all packing options,  
**READY BOX IP68, FOX BOX**  
**SUPER CLIK, RAPID JOINT IP68, RAPIDINO IP68**,  
**KING JOINT, RAPID JOINT, CLIK FIRE**,  
**RAPID JOINT IP68 System Fast RP** and **RAPID JOINT System Fast RP**,  
**GALACTIC MAMMUT SECURITY, GALACTIC NANO JOINT**,  
**MCA UNIVERSAL IP68** and **MCA-Y**.

PROPERTY		TEST METHOD / NOTE	UNIT	TYPICAL VALUE
Physical	Aspect	-	-	Gel
	Colour	-	-	Clear and transparent
	Initial Hardness	Penetration cone ASTM D 217/C	1/10 mm	340
	After aging hardness	Penetration cone ASTM D 217/C	1/10 mm	290
	Hardness	-	-	0 SHORE 00
	Density	-	g/cc	0,97
	Thermal conductivity	-	W/mK	Approx 0,2
	Continuous working temperature	-	°C	from -60 to +150
	Installation temperature	(related to joints)	°C	from -40 to + 50
	Water absorption after 30 days immersion	-	%	<< 0,05%
Flammability	Flame class	UL 94	-	HB
	Flammability point	-	°C	>200
	Auto-ignition temperature	-	°C	>400
Electrical	Dielectric strength	-	kV/mm	25
	Dielectric constant / Permittivity	@ 100Hz	-	2.95
		@ 100kHz	-	2.95
	Power factor / Tan δ	@ 100Hz	-	0,0025
		@ 100kHz	-	0,00015
Volume resistivity	-	Ω cm	2,4 x 10exp 15	
Degree of protection	EN 60529	-	-	IPX8, IP68 (Depending on the envelopes)

**RAYTECH S.r.l.**

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<b>EXPOSITION TO CHEMICALS OF CROSSLINKED PRODUCT</b>	
<b>Salt, salty water etc</b>	have no adverse effect.
<b>Sea water or chlorine environments (swimming pools etc.)</b>	have no adverse effect.
<b>Inorganic acids in water solutions</b>	have not visible effects.
<b>Strong, pure acids or alkaline (not in solution)</b>	The exposition has to be avoided, especially at high temperature.
<b>Alkaline solutions and vinegar</b>	could bring, after a long time of exposition, to a softening of the external surface.
<b>Solutions of hydrocarbons in water</b>	could give, after a long exposition at quite high temperatures, the hardening of the external surface of the products; of course nothing happens for temporary expositions
<b>Pure hydrocarbons</b>	Permanent immersion in strong and pure hydrocarbons has to be avoided.

<b>SHELF LIFE</b>	
The product has unlimited shelf life, if stored and used according to the relevant instructions.	

*Settimo Milanese, 10/2018*

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TDS\_G4J\_gel\_prefilled - 2/2



## 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:  
Matière première pour la fabrication des suivantes accessoires (moufle):

**HAPPY with transparent casing/con involucri trasparenti/ avec boites transparentes,**

**HAPPY JOINT,**

**GEL BOX LINE (ISAAC, PASCAL, WATT, JOULE, KELVIN) with transparent casing/con involucri trasparenti/ avec boites transparentes**

**GEL COVER LINE (OHM, BAR) with transparent casing/con involucri trasparenti / avec boites transparentes;**

**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.**

**GELGUM JOINT L,**

**GELGUM JOINT Y**

PROPERTIES – Proprietà - Propriétés	METHOD Metodo Méthode	UNIT Unità Unité	TYPICAL VALUE Valore tipico Valeur typique
<b>• GENERAL – generali - général</b>			
Density Densità Densité	ISO-1183	Kg/m <sup>3</sup>	905
Melt Flow Rate Indice di fluidità Indice de fluidité 230°C/2.16Kg	ISO-1133	g/10 min	20
<b>• THERMAL – Termiche- Thermique</b>			
HDT 0.45MPa	ISO-75	°C	69
<b>• MECHANICAL – Meccaniche - Mécanique</b>			
Charpy impact strength, notched Charpy con intaglio Charpy avec entaille	ISO-179	KJ/m <sup>2</sup>	6
Flexural modulus Modulo elastico a flessione Module d'élasticité à flexion	ISO-178	MPa	1100

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**GEL CONNECTION  
CONNECTORS  
WAGO series**

The following products come complete with 450 V – 32 A splicing connectors not of our production:

NANO JOINT: WAGO series 221

HAPPY JOINT: WAGO series 221

GALACTIC NANO JOINT: WAGO series 222

For further details please refer to manufacturer data available on [www.wago.com](http://www.wago.com)



**GEL CONNECTION  
CONNECTORS  
MAMMUT - FORBOX**

The following products come complete with connectors not of our production, according to the table.

Products	Connector			
	Type	mm <sup>2</sup>	V	A
PASCAL M2,5 NANO MAM 2,5 BARNEY FRED RAPIDINO IP68 L2 RAPIDINO IP68 L3	MAMMUT	2,5	400	24
KELVIN M4 NANO MAM 4 GALACTIC MAMMUT SECURITY FRED/4	MAMMUT	4	400	32
WATT + 1.5	FORBOX	1,5	450	17,5
WATT + 2.5 NANO FOR 2,5	FORBOX	2,5	450	24
KELVIN + 4 KELVIN 6 + 4 NANO FOR 4	FORBOX	4	450	32
KELVIN + 6 KELVIN 6 + 6	FORBOX	6	500	41

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