



SILICONE  
DIVISION



*English Version*

**Ray  
tech**

**Leader in Quality**

# SILICONE DIVISION

## INNOVATIVE, FAST, VERSATILE DISCOVER THE **RAYTECH** SILICONE WORLD



### Raytech GEL

Insulating, shock absorbing silicone gel.

**Raytech Gel** is an insulating, sealing, permanently soft innovative gel with fast cross linking at room temperature. It is particularly suitable for filling casings, drawers, etc... Recommended for use to protect against corrosion and for shock-absorbing cushioned packaging. Non-toxic and perfectly safe, **Raytech Gel** has no shelf life and an excellent resistance to ageing. Highly re-enterable. Standard cross linking time (pot life) is 5 mins. at + 23°C.

- ● Colours available in all formats: blue, red
- ● Colours available in 400 kg cans: green, yellow and transparent

#### Uses

- Insulation, sealing and anti-corrosion protection of electrical and electronic circuits.
- Filling of casings, compartments, etc.
- Bedsore prevention mattresses, cushions and similar to support wrists, etc.
- Can also be used as shock absorbers.
- Soft upholstery compatible with leather, etc.
- Model making and hobbies.



**Appearance:** Fluid

**Viscosity at 23°C (on mixed product):** Approx. 1600 MPas

**Mixing ratio:** 1:1

**Standard gel time at + 23°C:** Approx. 5 minutes

**Hardness (ASTM D 217/C cone penetration-unit 1/10 mm):** 200

**Specific weight:** Approx. 1 g/cm<sup>3</sup>

**Thermal conductivity:** Approx. 0.2 W/m<sup>2</sup>K

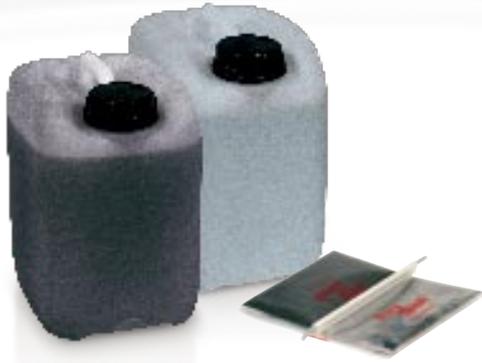
**Flash point:** > 200°C

**Self-igniting temperature:** > 400°C

**Dielectric strength:** > 20 kV/mm

**Ease of removal once installed in casing:** Very high

**Self-welding properties of a new layer over the first:** Very high



## Ray-RTV

### Fast cross linking bicomponent liquid silicone rubber.

**Ray-RTV** is the new range of bicomponent silicone developed by Raytech's laboratories. Non-toxic, safe and with no shelf life, Ray-RTV cross links quickly at room temperature, becoming a rubber with high mechanical, thermal and elastic characteristics. The standard product is available in black color with a pot life (cross linking time) of 7 to 9 minutes at + 23°C and hardness 30 Shore A. Other colours, hardnesses and pot life (cross linking) times are available on request for 400 kg cans.

**Appearance:** Fluid

**Odour:** Odourless

**Viscosity at 23°C (on mixed product):** 4000 - 6000 MPas

**Mixing ratio:** 1:1

**Standard working time at 23°C:** 7-9 minutes

**Hardness (Shore A after 24 hours):** Approx. 30

**Specific weight:** Approx. 1.24 g/cm<sup>3</sup>

**Operating temperature:** -60 / +200°C

**Flame characteristics:** Self-extinguishing

**Exothermic temperature:** Non-exothermic reaction

**Tensile strength at break:** Approx. 2.8 MPa

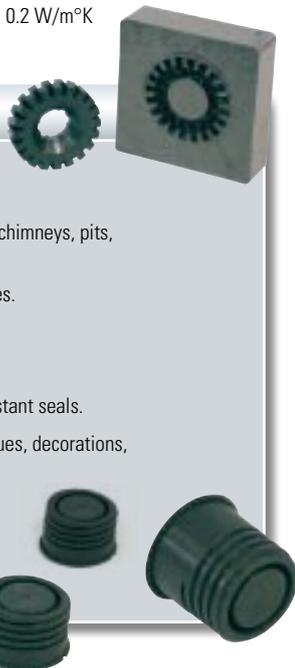
**Elongation at break:** Approx. 350%

**Resistance to tearing:** Approx. 8 N/mm

**Thermal conductivity (DIN 52612):** Approx. 0.2 W/m<sup>2</sup>K

### Uses

- Preparation of non-stick moulds, profile reliefs, repair of damaged items (print relief).
- Sealing of balconies and terraces, roofs and chimneys, pits, guttering and downpipes.
- Repair and reproduction of stuccos and friezes.
- Sealing of tanks and water deposits.
- Sealing of technical passages, etc.
- Rubber insulation and high temperature-resistant seals.
- Reproduction of architectonic elements, statues, decorations, thanks to the high reproduction of details.
- Protective covering of compartments/rooms.
- Anti-corrosion applications.
- Prototypes.



## Ray MOULD

### Bicomponent silicone rubber in mouldable paste.

**Ray MOULD** is a revolutionary bicomponent silicone rubber in paste form. It is easy to mix and to apply by hand, fast in cross linking, non-toxic and safe. It has no shelf life. It has high mechanical and thermal characteristics and it is highly self-extinguishing. This makes it perfect for the preparing of moulds for all uses, for the relief of profiles, adaptations carried out on site, repairs of damaged items (print relief) and for subsequent pouring of materials at high temperatures. Uses range from technical articles to artistic purposes, scenery preparation, construction, hydraulics, electro-technical products, DIY, etc. The standard product is available in light blue.

**Appearance before mixing:** Part A: white paste - Part B: blue paste

**Final appearance:** Light blue

**Mixing ratio:** 1:1

**Working time at + 23°C:** Approx. 2 minutes

**Cross linking time:** Approx. 5 minutes

**Hardness (SHORE A):** 32 - 34

**Specific weight:** 1.5 - 1.6 g/cm<sup>3</sup>

**Tensile strength at break:** 0.8 MPa

**Elongation at break:** 150 %

**Linear retraction during cross linking:** Not significant

**Dielectric strength:** >20 kV/mm

**Ease of removal once installed:** Very high

### Uses

- Creation of chemical plugs and anchors.
- Preparation of non-stick moulds, profile reliefs, repair of damaged items (print relief).
- Repair and reproduction of stuccos and friezes
- Anti-vibration for electrical appliances, seals for taps.
- Anti-vibration for doors and windows.
- Rubber insulation and high temperature-resistant seals.
- Reproduction of architectonic elements, statues, decorations, thanks to the high reproduction of details.
- Protective covering of compartments/rooms.
- Circuit protection.
- Fast prototyping.
- Fireproof protection.
- Shock absorber.



## Raytech GEL

### Ordering information



Product code	Package type	Total quantity of product	Colour
RAYTECH GEL 1000-5-B	2 bottles	1 lt	●
RAYTECH GEL 2000-5-B	2 bottles	2 lt	●
RAYTECH GEL 10000-5-B	2 tanks	10 lt	●
RAYTECH GEL 250-5-B	Bag	250 ml	●
RAYTECH GEL 400K-5-B	2 cans	400 kg	●
RAYTECH GEL 1000-5-R	2 bottles	1 lt	●
RAYTECH GEL 2000-5-R	2 bottles	2 lt	●
RAYTECH GEL 10000-5-R	2 tanks	10 lt	●
RAYTECH GEL 250-5-R	Bag	250 ml	●
RAYTECH GEL 400K-5-R	2 cans	400 kg	●
RAYTECH GEL 400K-5-V	2 cans	400 kg	●
RAYTECH GEL 400K-5-G	2 cans	400 kg	●
RAYTECH GEL 400K-5-T	2 cans	400 kg	●
RAYTECH GEL 400K-60-T*	2 cans	400 kg	●

\*Cross linking time (POT LIFE) 1 hr at + 23°C

On request, Raytech Gel is available in 400 kg cans with colours and cross link times (pot lives) different to those specified in the table.

## Ray-RTV

### Ordering information



Product code	Package type	Total quantity of product	Colour
RAY-RTV 10-30-N-1000	2 bottles	1 kg	●
RAY-RTV 10-30-N-2000	2 bottles	2 kg	●
RAY-RTV 10-30-N-10000	2 tanks	10 kg	●
RAY-RTV 10-30-N-250	Bag	250 gr	●
RAY-RTV 10-30-N-400K	2 cans	400 kg	●

Other colours, hardnesses and pot life (cross linking) times are available on request for 400 kg cans. Ray-RTV is available in bags up to 600gr.

## Ray MOULD

### Ordering information



Product code	Package type	Total quantity of product	Colour
RAY MOULD 025-A	2 tubs	250 gr	●
RAY MOULD 050-A	2 tubs	500 gr	●
RAY MOULD 50-A	2 cans	50 kg	●

Cross linking time (POT LIFE) 5 mins. at + 23°C

Ray MOULD 50 are available to order (2 cans for a total of 50 kg) with different colours.



**RAYTECH  
GEL**



**RAY  
RTV**



**RAY  
MOULD**



**RAY  
RESIN**



**MAGIC ONE  
ADHESIVE**



**RAY FAST  
ADHESIVE**

<b>SECTORS OF APPLICATION</b>		<b>RAYTECH GEL</b>	<b>RAY RTV</b>	<b>RAY MOULD</b>	<b>RAY RESIN</b>	<b>MAGIC ONE ADHESIVE</b>	<b>RAY FAST ADHESIVE</b>
<b>CONSTRUCTION AND HYDRAULICS</b>	Construction		•	•		•	•
	Thermal hydraulics		•	•		•	•
	Hydraulics and sanitary fixtures		•	•	•	•	
	Engineering and architecture		•	•	•		
	Gardening/Articles for gardening			•		•	•
<b>ARTISANAL AND NAVAL FIELDS</b>	Restauration		•	•	•		•
	Industrial and artisanal prototypes	•	•	•	•		
	Model making		•	•	•		
	Artisanal field		•	•	•	•	•
	Pad printing		•	•			
	Candels and artistic applications	•	•	•			
<b>INDUSTRY AND AUTOMOTIVE</b>	Ceramic industry and applications		•	•			
	Naval	•	•	•	•	•	•
	Metallurgical industry		•	•			
	Moulding and die creation		•	•	•		
	Automotive	•	•	•	•	•	•
<b>RELAX AND HOLIDAYS</b>	Mechanics		•	•		•	•
	Industrial lubrication						
	Camping			•			•
	Footware industry	•	•	•			
	Costume jewelery and jewelery		•	•		•	•
<b>ELECTROTECHNICS AND ELECTRONICS</b>	D.I.Y		•	•	•	•	•
	Model making and hobbies	•	•	•	•	•	•
	Electrotechnics, telecommunication				•	•	•
	Electronics and installations				•	•	•
<b>SCENOGRAPHY</b>	Energy				•	•	•
	Artistic		•	•	•		
<b>MEDICAL</b>	Scenography and theatre		•	•			
	Medical	•	•	•			
<b>PHISYCAL CHARACTERISTICS</b>		<b>RAYTECH GEL</b>	<b>RAY RTV</b>	<b>RAY MOULD</b>	<b>RAY RESIN</b>	<b>MAGIC ONE ADHESIVE</b>	<b>RAY FAST ADHESIVE</b>
<b>PHISICAL PROPERTIES</b>	Aspect as supplied	bicomp. liquid	bicomp. liquid	bicomp. paste	bicomp. liquid	1 comp. gel	1 comp. liquid
	Standard colors	Blue, red*	Black **	Light blue***	Amber	Translucent	Clear
	Density	approx 1	approx 1,24	1,5 - 1,6	approx 1,07	-	1,05
	Working time	-	-	approx 2 min	approx 20 min	-	10 to 20 sec
	Skin formation	-	-	-	-	<15 min	-
	Cross linking (Pot life) at 23°C	approx 5 min	7 to 9 min	5 min	approx 50 min at 20°C	3 mm/24 h	-
<b>THERMAL PROPERTIES</b>	Viscosity	approx 1600 MPas	4000-6000 MPas	Ductile and malleable	-	-	-
	Working temperature (°C)	-60 to +200	-60 to +200	-60 to +200	100	-40 to +100	-
	Overload temperature (°C)	-	-	250	-	-	-
	Thermal conductivity	approx 0,2 W/mK	approx 0,2 W/mK	approx 0,2 W/mK	-	-	-
	Fire characteristics	-	Self extinguish.	Self extinguish.	-	-	-
<b>ELECTRICAL PROPERTIES</b>	Dielectric strength (kV/mm)	> 20 kV/mm	> 18 kV/mm	> 20 kV/mm	-	-	-
	Permettivity	< 7	< 7	-	-	-	-
	Tan $\delta$	< 6 exp -3	< 6 exp -3	-	-	-	-
<b>MECHANICAL PROPERTIES</b>	Volume resistivity $\Omega$ cm	> 1,5 x 10 exp 15	> 1,5 x 10 exp 15	> 1,5 x 10 exp 16	-	-	-
	Elongation at break %	-	350	> 150	-	> 240	-
	Tensile strength (MPa)	-	approx 2,8	approx 0,8	-	2,2	Sanded steel >18 N/mm <sup>2</sup>
<b>DURATION</b>	Shelf life	No shelf life	No shelf life	No shelf life	2 years	-	-
<b>OTHER</b>	Ph	-	-	-	-	-	-

\*green, yellow and transparent available in cans of 400 kg

\*\*other colors available in cans of 400 kg

\*\*\*other colours available in cans of 50 kg

