Opti-tec 7020 Optically Clear Silicone Potting Compound

Description

Also available to buy online at

Opti-tec™ 7020 Optically Clear Silicone Rubber Potting Compound is a two-part, clear liquid silicone elastomer which will cure at room temperature or can be accelerated at elevated temperatures. It has a low viscosity, which allows for ease of flow around complex parts, providing electrical insulation and shock resistance. Its combination of transparency, non-yellowing and compliance makes it suitable for encapsulation of sensitive electronic or opto-electronic parts (e.g. LEDs), protecting the components from vibration, moisture and atmospheric contaminants.

Features & Benefits

- Optically clear
- Compliant
- Room or low temperature cure
- Non-yellowing catalyst system
- Low shrinkage
- Excellent for protecting LEDs and solar applications
- Convenient 10:1 mixing ratio for use in automatic dispensing equipment or hand mixing
- Low viscosity which allows for ease of flow around complex parts, providing electrical insulation

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and shock resistance

- Contains no solvents
- Has a chemical composition which provides hydrolytic stability and reversion resistance. It is an addition cure silicone with a platinum catalyst.

Applications

- Optical assembly 
- Opto-electronics, photonics, LEDs
- Optical encapsulation & glob topping, casting, potting
- Solar panels
- Electronics potting

Opti-tec 7020 is available in twinpacks or in bulk.

For bulk, weigh 10 parts of Part A to 1 part of Part B. Allowable tolerance on the measured weight for either Part A or Part B is +/-2.5%. The mixing container should be 4 to 5 times larger than the volume

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of silicone. Use stainless steel, HDPE, polypropylene, etc. Using clean tools, thoroughly mix the A and B components.

The twinpack sachet is a clear film sachet, with the resin and hardener separated by a removable clip and rail divider. Click here for twinpack mixing instructions.

Care should be taken to avoid excessive aeration. For many applications, natural degassing will be sufficient. If degassing is required, intermittently evacuate at 20-40 mbar for 15-30 minutes. Leave for a few minutes after releasing the vacuum to allow surface bubbles to collapse.

Cure begins as soon as the components are mixed in the recommended ratio. Complete cure is normally achieved in 16 to 24 hours at ambient temperatures of 20-30°C. Cure can be accelerated by heating to 50-120°C.

Specifications

Opti-tec 7020 Optically Clear Silicone Potting Compound

Specification	Mixed	Resin	Hardener
Colour	Clear; colourless	Clear	Clear
Viscosity (mPa.s)	Easily pourable	4000	500
Specific gravity		1.02	1.01
Mix ratio	10:1		
Pot life (@ 23°C)	4 hours		
Cure schedule (approx maximum time)	25°C – 20 hours		
	100°C – 60 mins		
Cured properties (60 minutes @ 100°C)			
Shore Hardness	A40		
Temperature range	-60 to 200°C		
Tensile strength	4.8 MPa		

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Specification	Mixed	Resin	Hardener
Elongation at break	100%		
Linear shrinkage	< 0.1%		
CTE	275 ppm/°C		
Dielectric strength	20 kV/mm		
Dielectric constant	2.69 @ 1000Hz		
Dissipation factor	0.0006 @ 1000Hz		
Volume resistivity	1.7×10^{15} ohm-cm		
Thermal conductivity	0.18 W/m K		
Specific heat	1.255 kJ/kg		
Refractive index	1.405		
Transmittance	90.3%		

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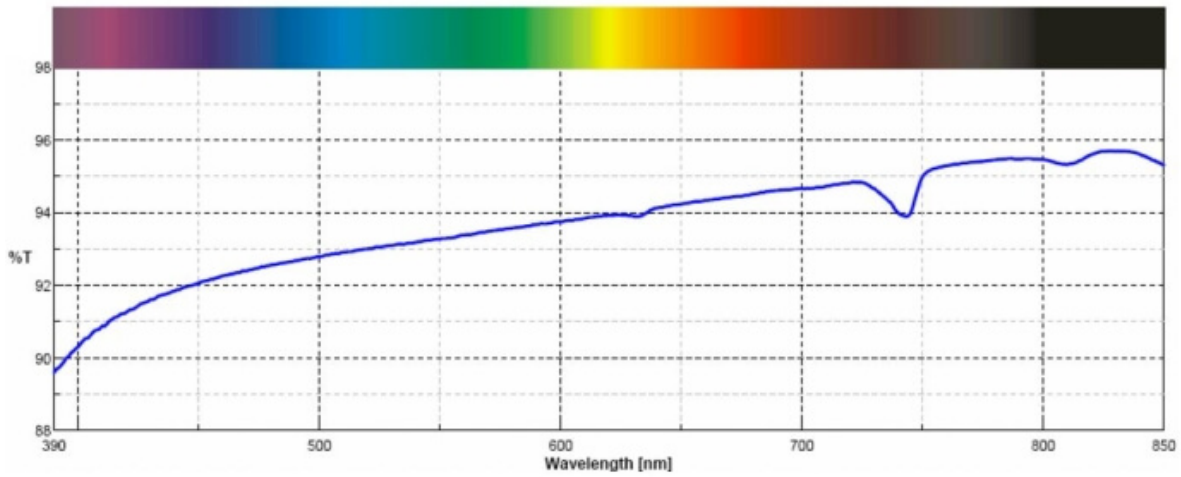

Transmittance of Opti-tec 7020 @ 1cm path length

Safety Data Sheets

For the latest SDS for this product, please e-mail msds@intertronics.co.uk

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Ordering Information

Opti-tec 7020 is supplied in matched kits in a 10 to 1 ratio of Part A to Part B – standard size is 1.1kg total. Alternatively, Opti-tec 7020 is supplied in pre-weighed 250 gram twinpacks.

Part number	Description

Opti-tec 7020 Optically Clear Silicone Potting Compound

OPT7020-1.1KG	Optically Clear Silicone Potting Compound - 1.1 kilogram kit
OPT7020-250G	Optically Clear Silicone Potting Compound - 250 gram twinpack

Keep the product in clearly labelled containers.

Let’s start by talking about your application

Opti-tec 7020 Optically Clear Silicone Potting Compound

01865 842842	orders@intertronics.co.uk

- Name*
- Company*
- Phone*
- Email*
- Post code*

If you're in the UK, knowing your postcode would help us get in touch even more quickly. If you're outside the UK, please indicate your country.

- Tell us about your application

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Any information that you submit using this form will be processed according to our privacy policy.

Email

This field is for validation purposes and should be left unchanged.

Submit

Supplied by:

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