

# Opti-tec 4200 Optically Clear Polyurethane Encapsulant & Potting Compound



## Description

Also available to buy online at [futureelectronics](https://www.futureelectronics.com)  
SHOP 

**Opti-tec™ 4200** is a clear, water-white polyurethane resin designed for the encapsulation of electronics, LEDs, electrical products and other items where high transparency and aesthetics are important. Opti-tec 4200 optically clear potting compound has excellent non-yellowing colour stability, due to the incorporation of both UV resistant base materials and the addition of UV stabilisers and antioxidants.

**Opti-tec 4200** is used for a range of applications from high value LED panels to decorative giftware (e.g. flower impregnation). It is also an excellent resin for the doming of badges, labels and decals.

**Opti-tec 4200** is available in a translucent milky-white version ([Opti-tec 4220](#)).

## Features & Benefits

- Clear, water-white, non-yellowing
- Excellent long term UV stability
- Scratch and mark resistant

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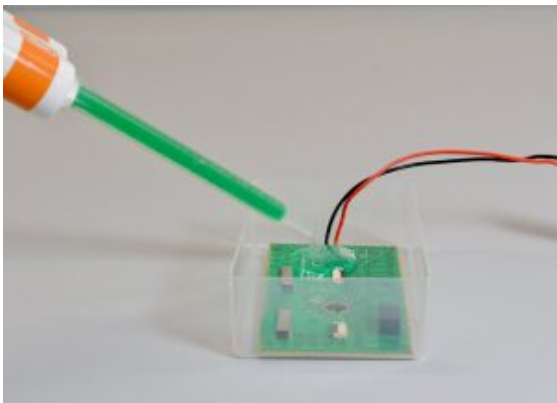
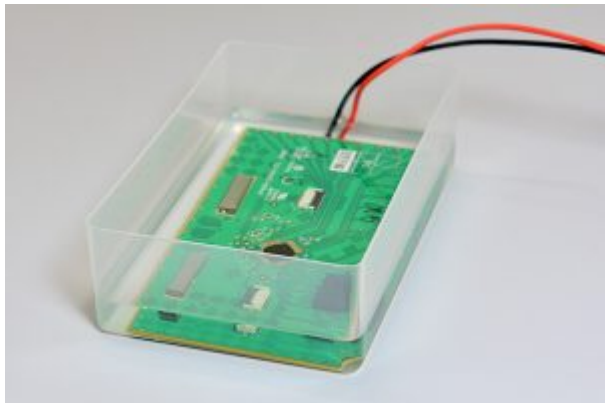


- Non-toxic
- Easy to mix and process
- Very low viscosity
- Excellent penetration and air release properties
- Low shrinkage
- Low exotherm

## Applications

- Protection of LEDs – LED bars, LED arrays, luminaires
- LED potting or LED encapsulation
- Electronics potting
- Dome coating of labels and badges
- High quality, clear casting

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## Specifications

Typical properties	Mixed	Resin	Hardener
Colour	Clear	Clear	Clear
Specific gravity (g/ml)	1.11	1.06	1.16
Viscosity mPa.s @ 25°C	600	600	600

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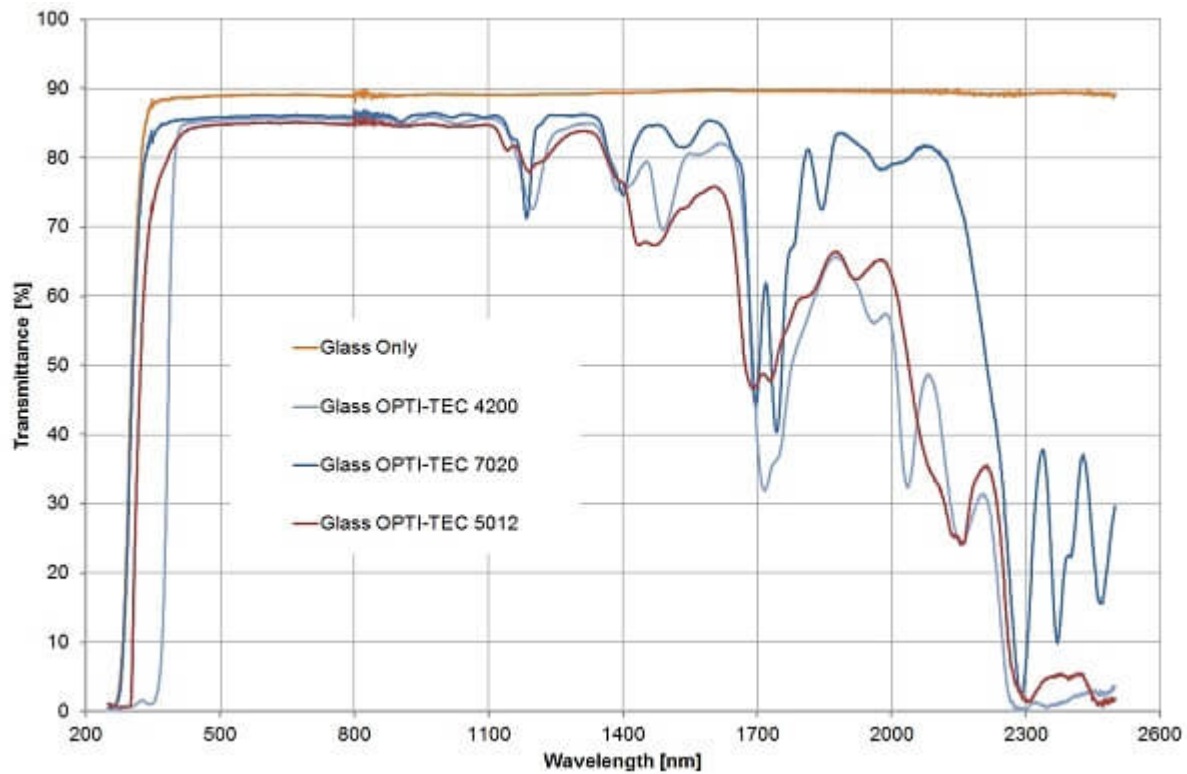
Typical properties	Mixed	Resin	Hardener
Mix ratio by weight	0.92:1		
Mix ratio by volume	1:1		
Curing*			
Pot life	10 minutes		
Gel time	20 minutes		
Tack free cure	40 minutes		
Minimum cure schedule	36 hours @ 20-25°C 4 hours @ 40°C 2 hours @ 60°C		
* typical values – will vary according to mass, film thickness and application. Higher cure temperatures will result in greater cure shrinkage and exotherm.			
Cured properties			
Shore hardness	A75		
Operating temperature (application & geometry dependent)	-55 to +120°C		

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Typical properties	Mixed	Resin	Hardener
Thermal conductivity	< 0.21 W/mK		
Tensile strength	~ 15 mPa		
Elongation at break	100%		
Coefficient of linear expansion	100-150 pp/m°C		
Volume resistivity	< $1.3 \times 10^{12}$ ohm.cm		
Surface resistivity	< $1.4 \times 10^{12}$ ohm		
Dielectric strength	20 kV/mm		
Water absorption	1.17% (30 days @ 25°C)		
Refractive index	1.47-1.48		
<b>Opti-tec 4200</b> is RoHS compliant and contains 0% REACH SVHC			

# Opti-tec 4200 Optically Clear Polyurethane Encapsulant & Potting Compound



Optical transmission of Opti-tec 4200, Opti-tec 7020, Opti-tec 5012

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## Safety Data Sheets

For the latest SDS for this product, please e-mail [msds@intertronics.co.uk](mailto:msds@intertronics.co.uk)

As of 24 August 2023, [\*adequate training\*](#) is required before industrial or professional use of this product

## Ordering Information

### Packaging







Opti-tec 4200 is available in convenient side-by-side double syringe cartridges, twinpack sachets and bulk packaging.

[Click here for twinpack mixing instructions.](#)

Part number	Description
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Opti-tec 4200 Optically Clear  
Polyurethane Encapsulant & Potting  
Compound



<div>OPT4200-50G</div> <div><div>SHOP </div></div>	<div>Clear Polyurethane Encapsulant – 50 gram double syringe cartridge</div>
<div>IDM805001</div>	<div>Syringe Gun – for 50g cartridges</div>
<div>OPT4200-200G</div> <div><div>SHOP </div></div>	<div>Clear Polyurethane Encapsulant – 200 gram double syringe cartridge</div>
<div>OPT4200-250G</div> <div><div>SHOP </div></div>	<div>Clear Polyurethane Encapsulant – 250 gram twinpack sachet</div>



# Opti-tec 4200 Optically Clear Polyurethane Encapsulant & Potting Compound



OPT4200-1KG



Clear Polyurethane Encapsulant – 1 kilogram kit

For best results, store away from strong oxidising agents, strong acids and strong bases. Store in a cool, well-ventilated area. Keep container tightly closed and keep in original packaging.

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**Let’s start by talking about your application**

# Opti-tec 4200 Optically Clear Polyurethane Encapsulant & Potting Compound



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[orders@intertronics.co.uk](mailto: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

# Opti-tec 4200 Optically Clear Polyurethane Encapsulant & Potting Compound



Any information that you submit using this form will be processed according to our [privacy policy](#).

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Submit

Supplied by:



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Last updated: January 2024 Version: 3.3  
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