

IRS 3071 Polyurethane Potting Compound, Flame Retardant Encapsulating Compound



Description

Also available to buy online at [!\[\]\(666e09182d4cd268646ea700ea60dcdf_img.jpg\)](#)
SHOP 

IRS 3071 is a semi-rigid, room temperature curing, flame retardant and thermally conductive polyurethane potting compound. Specifically designed for the cost effective encapsulation of a variety of low to medium voltage electrical and electronic applications, the material is medium viscosity, flame retardant to UL94 V-0 at 6mm and has excellent adhesion to a wide range of substrates. IRS 3071 is resistant to UV, water based cleaning chemicals, motor oil, lubricants and most dilute acids and alkalis.

Features & Benefits

- Non-toxic

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- Flame retardant to UL94 V-0 at 6mm
- Excellent adhesion
- Thermally conductive
- Economical
- RoHS & WEEE compliant
- Long pot life
- Cured at room temperature or with heat

Specifications

IRS 3071 Polyurethane Potting Compound, Flame Retardant Encapsulating Compound



| Specification | Mixed | Resin | Hardener |
|-----------------------------|--|--|----------|
| Colour | Black | Black | Amber |
| Specific gravity (g/ml) | 1.65 | 1.72 | 1.24 |
| Viscosity m.Pa.s @ 25°C | 6,000 | 19,000 | 200 |
| Mix ratio | 8.4:1 (weight) 6.1:1 (volume) | | |
| Pot life | 20 minutes (150g @ 25°C) | | |
| Gel time | 40 minutes (150g @ 25°C) | | |
| Cure schedule | Minimum cure: 24 hrs @ 20°C 4 hrs @ 60°C 2 hrs @ 80°C | Full cure: 1 week 4 hours 2 hours | |
| Operating temperature range | -40 to +125°C | | |

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| Specification | Mixed | Resin | Hardener |
|---------------------------------|------------------------------|-------|----------|
| Flammability | UL94 V-0 @ 6mm | | |
| Shrinkage | 0.5% by volume | | |
| Shore hardness | A90 | | |
| Thermal conductivity | 0.75 W/mK | | |
| Coefficient of linear expansion | 60-80 ppm/°C | | |
| Volume resistivity | 12 ¹⁰ ohm-cm | | |
| Surface resistivity | 12-14 ¹⁰ ohm | | |
| Dielectric strength | 16 kV/mm | | |
| Relative permittivity | 3.2 @ 50KHz | | |
| Water absorption | 0.54% (after 30 days @ 25°C) | | |
| Elongation at break | ~ 30% | | |
| Comparative tracking index | > 600 | | |

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| Specification | Mixed | Resin | Hardener |
|-----------------------------------|-----------|-------|----------|
| Glass transition temperature (Tg) | -10°C | | |
| Shelf life | 12 months | | |

Safety Data Sheets

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




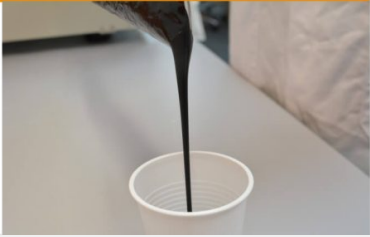
As of 24 August 2023, adequate training is required before industrial or professional use of this product .

Other Information

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See how **IRS 3071** works as part of a real applications in these potting compound [case studies](#):

| | |
|---|---|
| <div><p>CASE STUDY</p><div><p>intertronics adhesives, coatings, sealants & equipment for your manufacturing and technology applications</p><p>Opti-tec 4210 Optically Clear, Hard Polyurethane Encapsulant and Potting Compound</p><p>IRS 3071 Polyurethane Potting Compound</p></div><div></div></div> | <p><u>Potting a pressure-resistant device for deep sea fishing</u></p> <p>Utilising a combination of optically clear Opti-tec 4210 and opaque IRS 3071 into their product, SNTech was able to protect their innovative ‘Pieces Deep’ fishing lights from 100 bar pressures at depths of 1000m, without sacrificing light performance.</p> |
| <div><p>CASE STUDY</p><div><p>intertronics adhesives, coatings, sealants & equipment for your manufacturing and technology applications</p><p>IRS 3071 Flame retardant polyurethane potting compound</p></div><div></div></div> | <p><u>Potting compound protects trace heating system thermostats</u></p> <p>The development process of STOPFREEZE’s COMBI and KIT products required a method of protecting the IP67 waterproof in-line thermostat with integral LED indicators from water ingress and physical damage in its outdoor situation.</p> |

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|--|--|
| <div><div>CASE STUDY</div><div><div><div>intertronics</div><div>adhesives, coatings, sealants & equipment for your manufacturing and technology applications</div></div><div><div>IRS 3071</div><div>Flame retardant polyurethane potting compound</div></div><div></div></div></div> | <p><u>Potting compound goes under the sledge hammer at Tough Tracker</u></p> <p>A flame retardant polyurethane potting compound enabled the protection of electronics and a resistance to high impact shock and extreme conditions.</p> |
| <div><div><div>Application Insight</div><div>POTTING INDUSTRIAL LED BEACONS</div><div>Encapsulating miniature PCB's in various industrial signalling</div><div>IRS 3071</div></div><div></div></div> | <p><u>Application Insight – Potting Industrial LED Beacons</u></p> <p>Encapsulating miniature PCB's in various signalling devices for industries including logistics, oil and gas, rail, security, process control and public transport.</p> |

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Application Insight

BONDING LITHIUM BATTERY SYSTEMS FOR MOTORSPORT

Bonding lithium-ion cells into bespoke battery packs for motorsport

IRS 3071



Application Insight – Bonding Lithium Battery Systems for Motorsport

Bonding lithium-ion cells into bespoke battery packs for motorsport.

Ordering Information




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IRS 3071 is available in twinpacks or in bulk.

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.](#)

In kit form, resin and hardener are provided in separate containers to the correct ratio. In most cases pour the hardener into the larger resin container and use it as a mixing vessel. Stir well using appropriate mixer until homogeneous.

| Part number | Description |
|---|--|
| IRS3071-1KG  | Polyurethane potting compound – 1000 gram twinpack |
| IRS3071-5KG | Bulk kit – 5kg |

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| Part number | Description |
|--------------|-----------------|
| IRS3071-25KG | Bulk kit – 25kg |

For optimal results, store away from strong oxidising agents, strong acids, water, alcohols and amines. Store in a cool, well-ventilated area. Keep container tightly closed. Keep in original packaging.

Let’s start by talking about your application

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orders@intertronics.co.uk

- Name*
- Company*
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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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