

HY-SPEC

HIGH PERFORMANCE HYBRID SEALANTS

High performance hybrid sealants and adhesives, at competitive prices.

Introducing...



- New Generation
- Strong & Flexible
- Solvent Free
- Paintable
- Quality Products



MADE IN
BRITAIN



Meet HY-SPEC

Hy-Spec Hybrids are unique silane-cured organic polymers that combine the typical properties of silicones (such as high elasticity) and of polyurethanes (including paintability and mechanical strength).

Our hybrid polymers are extremely versatile, easy to use and are free from isocyanates and solvents. Hy-Spec silane technology boasts a curing mechanism that is not only fast but has a truly tack free finish.

Once cured, a Hy-Spec hybrid forms a robust and flexible product that is highly durable and paintable.

Key Features of the Hy-Spec Range:

- **Environmentally friendly**
- **Strong adhesive**
- **Flexible sealant**
- **Solvent free**
- **Paintable**
- **UV resistant**
- **No shrinkage**
- **Low odour**

Traditionally for one part moisture curing products the main options were either silicone or polyurethane technologies. Each of these have strengths but also numerous inherent weaknesses.

Product Property	Hy-Spec Hybrid	1 Part Polyurethane	Silicone
Paintable	✓	✓	X
Solvent free	✓	X	✓
Non-hazardous (Isocyanate free)	✓	X	✓
Good UV resistance	✓	X	✓
High bond strength	✓	✓	X
Can be used on damp surfaces	✓	X	X
Good substrate compatibility	✓	✓	X
Wide range of elastic modulus	✓	X	X
Good working characteristics	✓	X	✓
No shrinkage	✓	X	✓
Low odour	✓	X	X



Hy-Spec manufacturing process

The latest HY-SPEC product range offers additional benefits that earlier materials simply cannot match.

The Hodgson Hy-Spec Hybrid Range is an exciting new generation of sealants that show improved features compared to silicones and polyurethanes, and are also developed and manufactured within the UK under strict ISO 9001, ISO 14001 and ISO 18001 quality management systems.

The versatility of the Hy-Spec silane technology allows development of materials with the exact properties you require for the intended task, from maximum flexibility to the highest bond strengths.

Specialist properties have also been incorporated such as crystal clear finishes or antimicrobial protection to offer a complete suite of materials for every eventuality.

The specific features and benefits of the Hy-Spec range are outlined on the following product pages.



Flexible but strong, Hy-Spec being tested in tensile testing machine

To find out more details on the Hy-Spec product range you can call our UK based team on 01482 868321.

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www.hodgsonsealants.com

Seal&Bond

Seal&Bond is a one part, neutral cure, highly elastic sealant and adhesive based on Hy-Spec Hybrid Technology.

Seal&Bond cures to a permanently highly elastic and durable compound, suitable for almost all sealing and bonding applications.

Excellent adhesion is achieved to most substrates including: timber, metals, brickwork, GRP, glass, ceramics, PVCu, concrete and most plastics (except PP, PE and PTFE). It can be applied and will adhere to damp surfaces even in wet conditions.

- Highly elastic
- Solvent & Isocyanate free
- Low odour & no shrinkage
- Non corrosive
- Can be used on damp surfaces
- Paintable
- High strength
- High movement capability
- Permanently flexible
- UV & weather resistant
- Cures tack free
- Fast curing
- Good tooling properties

Uses

Seals and bonds almost anything to anything! Suitable for many substrates including; primed and unprimed metals, aluminium, steel, composite panels, wood, glass, plastics, concrete, mortar, plaster, epoxy and polyester coated panels, PVCu, PU, stainless steel, anodised aluminium, copper, zinc, lead, finished wood and polystyrene.

- Elastic sealing & bonding applications in industrial, building and construction
- Versatile sealant for use in domestic, trade and industrial applications
- All-purpose sealant and adhesive, for internal and external use
- For factory, on-site or remedial applications

Properties

- **Application temperature range:** +5°C to +40°C
- **Shelf life:** 18 months
- **Skinning time:** 15-25 minutes
- **Working time:** <15 minutes

290ml cartridges, 12 per display box
Colours: Black, Grey, White (Other colours available on special request)



Performance

Adhesion: Excellent
Movement Accommodation: $\pm 20\%$
Base technology: Hy-Spec Hybrid Polymer
Chemical Resistance: Good
Curing system: Moisture Cure
Hardness: Shore A = 40 ± 5
Skin formation: 15 – 25 min @ 23°C / 50% RH
Elongation at break: 800%
Paintability: Paintable with most paints, alkyd based paints may slow curing (testing is recommended)
Density: 1.39g/ml
Extrusion rate: 4-5g/s
Modulus at 100% elongation: 1.5 N/mm²
Curing rate: 2-3mm / 24hours
Tensile strength: 2.5 N/mm²
Service temperature range: - 40°C to +80°C
Slump: Non-sag
UV resistance: Excellent



PowerBond

PowerBond is a one part, neutral cure, high strength adhesive based on Hy-Spec Hybrid Technology.

PowerBond possesses very high green strength and initial tack and quickly cures to a permanently flexible and durable compound, suitable for almost all bonding applications.

Excellent adhesion is achieved to most substrates including: timber, metals, brickwork, GRP, glass, ceramics, PVCu, concrete and most plastics (except PP, PE and PTFE) even in wet conditions.

- Unbelievably high strength bond
- High green strength and initial tack
- Can replace mechanical fixings
- Solvent & Isocyanate free
- Fast cure
- Permanently Flexible / Elastic
- Can be used on damp surfaces
- Suitable for internal or external use
- Good adhesion to most surfaces
- Paintable
- UV & Weather Resistant
- Low odour & no shrinkage

Uses

Sticks to almost anything including; unprimed and primed metals, aluminium, steel, composite panels, wood, glass, plastics, concrete, mortar, plaster, epoxy and polyester coated panels, polycarbonate, PU, stainless steel, anodised aluminium, copper, zinc, lead, finished wood and polystyrene.

- Adhesive bonding applications in industrial, building and construction
- High strength adhesive in domestic and trade applications
- Bonding of items including; decorative frames, skirting boards, insulation panels, cable ducts, plasterboard, floor boards, gripper rods and stair nosing
- For factory, on-site or remedial applications

Properties

- **Application temperature range:** + 5°C to + 40°C
- **Shelf life:** 18 months
- **Skinning time:** 15-25 minutes
- **Working time:** <15 minutes



Performance

Adhesion: Excellent

Base technology: Hy-Spec Hybrid Polymer

Chemical resistance: Good

Curing system: Moisture cure

Service temperature range: -40°C to +80°C

Shore A hardness: 75

Specific gravity: 1.65 g/cm³

Elongation at break: 150%

Tensile strength: 2.0 N/mm²

Skin forming time: 10 - 15min @ 23°C / 50% RH

Paintability*: Paintable with most paints, alkyd based paints may slow curing (testing is recommended)

Slump: Non-sag

UV resistance: Excellent

Density: 1.65g/ml

Extrusion rate: 10-15g/s

Curing rate: 2-3mm / 24hours

290ml cartridges, 12 per display box

Colours: White (Other colours available on special request)



CrystalSeal

CrystalSeal is a crystal clear one part, neutral cure sealant and adhesive based on Hy-Spec Hybrid Technology.

CrystalSeal cures to a permanently highly elastic and durable compound, suitable for almost all sealing and adhesive applications where an invisible joint is required.

Excellent adhesion is achieved to most substrates including: timber, metals, brickwork, GRP, glass, ceramics, PVCu, concrete and most plastics (except PP, PE and PTFE) even on damp surfaces.

- Crystal clear formulation
- Solvent & Isocyanate free
- Permanently flexible
- High strength
- Low odour & no shrinkage
- Paintable
- Can be applied to damp surfaces

Uses

Permanent elastic sealing is achieved with high adhesive strength to almost all materials including; wood, concrete, tiles, steel, aluminium, zinc, copper, brass, stainless steel, glass, polyester.

- Invisible bonding of transparent materials including glass
- Transparent sealant for use in domestic, trade and industrial applications

Properties

- **Application temperature range:** +5°C to +30°C
- **Curing rate:** Cures at a rate of 3-4mm in 24 hours at 23°C @ 50% RH. Lower temperatures and drier conditions will result in a slower rate of cure
- **Shelf life:** 12 months in original unopened packaging at temperatures of +5°C to +25°C
- **Skinning time:** Skin forms after approximately 30 minutes
- **Working time:** Approximately 30 minutes depending on conditions



Performance

Adhesion: Excellent un-primed adhesion to glass or glazed surfaces, coated metals, brick, PVC-U, polycarbonate and timber

Base technology: Hodgson Hybrid Polymer

Chemical resistance: Good

Curing system: Moisture cure

Mould resistance: Good

Movement accommodation: ± 20%

Service temperature range: -30°C to +70°C

Shore A hardness: 23-35

Specific gravity: 1.03 g/cm³

Elongation at break: >400%

Shear strength: 1.00 MPa

Skin forming time: ca. 30mins @ 23°C & 50% RH

290ml cartridges, 12 per display box

Colours: Crystal Clear



HygieneSeal

HygieneSeal is a high modulus, single component, moisture-curing, adhesive and sealant based on Hy-Spec Hybrid Technology. **HygieneSeal** is protected by BioCote Silver Antimicrobial technology to create a product upon which bacteria/microbes cannot survive making it easier to maintain a hygienic surface. This is superior to traditional antibacterial materials used in sealants which degrade over time and are not as effective against bacteria and viruses including; MRSA, E. coli, Campylobacter, Staphylococcus aureus, Salmonella, Listeria and Legionella. Biocote protected **HygieneSeal** has been proven to reduce bacteria and microbes by up to 99.99% versus MOD ISO22196: 2011.

- Antimicrobial
- Solvent & Isocyanate free
- Anti-pick formulation
- Low odour & no shrinkage
- Non corrosive
- Can be used on damp surfaces
- Paintable
- High strength
- High movement capability
- Permanently flexible
- UV & Weather Resistant

Uses

Permanent elastic sealing is achieved with high adhesive strength to almost all materials including; wood, concrete, tiles, steel, aluminium, zinc, copper, brass, stainless steel, glass, polyester.

- Ideal for sealing of joints in refrigerated vehicles for food or pharmaceutical transportation
- Suitable for use in secure environments where enhanced resistance to finger picking is required
- Adhesive sealing and jointing to most substrates especially where superior antimicrobial performance is required
- For use in communal areas such as; schools, hospitals, care homes, waiting rooms and prisons

Properties

- **Application temperature range:** +5°C to +30°C
- **Curing rate:** Cures at a rate of 2 - 3mm in 24 hours at 23°C @ 50% RH. Lower temperatures and drier conditions will result in a slower rate of cure
- **Shelf life:** 18 months in original unopened packaging in cool, dry condition with temperatures of +5°C to +25°C
- **Skinning time:** Skin forms after approximately 25 minutes
- **Tack free time:** Approximately 40 minutes (23°C & 65% RH)



Performance

Adhesion: Excellent

Base technology: Hy-Spec Hybrid Polymer

Chemical resistance: Excellent to dilute acids and alkalis

Curing system: Neutral cure

Mould resistance: Excellent

Movement accommodation: ± 20%

Service life (predicted): 20+ years

Service temperature range: -30°C to +80°C

Shore A hardness: 60 ±5

Slump: None

Specific gravity: 1.60 g/cm³

Staining: Nil

Elongation at break: >250%

Tensile (100% elongation): 3.0 MPa

UV resistance: Excellent

290ml cartridges, 12 per display box

Colours: White (Other colours available on special request.)



LiquidSeal

LiquidSeal is a single component, moisture-curing, liquid applied sealant based on Hy-Spec Hybrid Technology for the water-proof sealing of many construction applications. It is equally suitable for brush, roller or spray application, especially designed for the protection of buildings from water ingress and air leakage.

- Solvent, Isocyanate, water and bitumen free
- Low odour & no shrinkage
- Non corrosive
- Ready to use, cold applied, single component mixture
- High strength
- Permanently flexible
- UV & Weather Resistant

Uses

Permanent elastic sealing is achieved with high adhesive strength to a wide variety of substrates including brick, stone, timber, concrete, tiles, coated metals, GRP and some plastics and can be used over bitumen-based products.

- Flat roofing installation and repairs
- Guttering repairs and refurbishment
- Can be used as a moisture barrier under floor screeds or horizontal tiled areas
- Suited to applications with many joints, penetrations and awkward shapes forming a seamless water-proof membrane
- Can be applied by brush, roller or spray to horizontal and vertical surfaces as a one or two coat system
- Air barrier coating in wall and floor joints to help prevent air leakage in the building envelope and help meet the requirements of Part L

Properties

- **Application temperature range:** +5°C to +30°C
- **Curing rate:** Cures at a rate of 1 – 2 mm in 24 hours at 23°C @ 50% RH. Lower temperatures and drier conditions will result in a slower rate of cure
- **Shelf life:** 12 months in original unopened packaging in cool, dry condition with temperatures of +5°C to +25°C
- **Skinning time:** Skin forms after approximately 40 minutes

Performance

Adhesion: Excellent unprimed adhesion to substrates including; glass or glazed surfaces, coated metals, brick, PVC-U and timber (test before application)
Base technology: Hy-Spec Hybrid Polymer
Chemical resistance: Excellent to dilute acids and alkalis
Crack bridging: 2mm
Curing system: Neutral cure, typical 1 – 2 mm thickness in 24 hours
Mould resistance: Good
Service temperature range: -20°C to +90°C (after full cure)
Shore A hardness: 40 ± 5
Skin over time: 40 mins
Specific gravity: 1.37 g/cm³
UV resistance: Excellent

5kg buckets. Colours: Grey



An Unrivalled Range of Sealant Technologies Manufactured in Our UK Plant

- Excellent Customer Service
- High Quality Products
- Full Technical Support
- Manufactured in Britain
- Flexible to Customer Requirements
- ISO 9001, ISO 14001 & ISO 18001
- Investors in People Accredited



Visit - hodgsonsealants.com/hyspec/

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SEALANTS ASSOCIATION**

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