

# Hyper Seal Crystal

Neutral silicone for construction, carpentry, and window and door frames.

Hyper Seal Crystal is an easy-to-use transparent, multi-purpose silicone.



## Rating 3

1. Easy to smooth
2. Adheres to the most common construction materials
3. For internal and external use
4. Resistant to ageing and weather conditions
5. UV resistant

- × Regional Mineral  $\geq 30\%$
- × VOC Low Emission
- ✓ Solvent  $\leq 5$  g/kg
- ✓ Low Ecological Impact
- ✓ Health Care

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## Areas of application

### → Use

Neutral cross-linked silicone sealant for expansion joints and sealing of metal- and woodwork, and window and door frames. We recommend the use of Hyper Seal Crystal for the following:

- expansion joints and connections in light and heavy prefabricated elements and traditional masonry;
- sealing of joints in panelling for facades, brick-faced walls, wooden finishing elements;
- internal and external facade joints;
- perimeter and connecting joints.

Hyper Seal Crystal adheres perfectly to the most common construction materials such as: concrete, glass, anodized aluminium, timber.

Do not use on loose and dusty surfaces, on bituminous structures and products exuding oils, solvents or plasticizers; on polyethylene, polypropylene, polycarbonate, polytetrafluorethylene, neoprene, Teflon surfaces. It is recommended that a test be carried out before application on sensitive metal surfaces such as copper, silver and relevant alloys, marble and natural stone. Hyper Seal Crystal cannot be painted over.

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## Instructions for use

### → Preparation of substrates

All surfaces to be sealed must be free of standing water, must be clean and free from grease, rust, dust and loose debris. Remove all debonded or loose parts and carefully deoxidize all metals. When preparing visible joints, and in order to achieve a clean sealing line, it is recommended to cover the edges with protective masking tape. The application technician is responsible for checking that the sealant is compatible with the substrate in terms of adhesion and stain formation.

If deemed appropriate, use a primer prior to application.

The use of Keragrip Eco Pulep on metal surfaces optimises the cleanliness of the surface and the adhesion of the product to it.

### → Preparation

The product is ready-to-use. After cutting the conical nozzle of the cartridge, cut the spout at an angle of 45° to suit the width of the seal to be made and screw it onto the cartridge. Insert the cartridge of sealant into the appropriate manual or pneumatic dispensing gun.

### → Application

Before extrusion of the product, check that any applied primer coat is dry. Areas close to joints must be protected with masking tape to prevent substrates from being contaminated and to ensure even sealing. Remove the masking tape immediately after finishing. Make sure the silicone has been compacted deep into the joints to ensure optimum adhesion. To achieve a perfect finish, pass a metal or plastic spreader soaked in soapy water over the surface in one, continual movement if possible. For long-lasting sealing, capable of withstanding expansion and contraction stress, the following conditions are necessary:

the joint is applied so that movement will not exceed 25% of joint width

- the ratio between width and sealant depth is between 1 and 2
- the sealant adheres only to the sides of the joint and not to the substrate. Use Joint polyethylene foam sub-joint layer to adapt depth and prevent adhesion to the surface.
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### → Cleaning

Residual traces of sealant can be removed with common solvents. Once hardened, the product can only be removed by mechanical means.

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## Special notes

- Do not use in completely closed areas as the product will polymerise in atmospheric humidity.
- Brush the joint within 5 minutes after application to ensure the best contact between sealant and substrate.
- Hyper Seal Crystal cannot be painted over.
- A base coat is normally not necessary. Specific substrates (porous or made of plastic materials) may require the use of an adhesion promoter to ensure maximum adhesion. This product is recommended for all situations at risk from dust.

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## Certificates and marks



\* Émission dans l'air intérieur Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

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## Abstract

Elastic, waterproof sealing of joints, gaps, elastic couplings of building materials in general will be carried out with a thixotropic, neutral, silicone sealant, such as Hyper Seal Crystal by Kerakoll Spa, GreenBuilding Rating 3, CE-marked and compliant with the performance requirements of Standard EN 15651, part 1.

**Technical Data compliant with Kerakoll Quality Standard**

Appearance	transparent thixotropic paste
Specific weight:	≈ 1 g/cm <sup>3</sup>
Chemical nature	neutral cross-linked silicone sealant
Shelf life	≈ 15 months from the date of production, in the original packaging, sealed and protected against moisture
Warning	Protect from frost, avoid direct exposure to sunlight and sources of heat
Pack	300 ml Cartridge
Joint min. width	≥ 5 mm
Joint max. width	≤ 30 mm
Sealing section ratio W/D:	
- up to 12 mm	1/1
- from 12 to 30 mm	2/1
Temperature range for application	+5 °C / +40 °C
Skinning time	≈ 15 – 20 min.
Reticulation time	≈ 2.5 mm / 24 hrs
Coverage	see approximate coverage table

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site, i.e.temperature, ventilation and absorbcency level of the substrate and of the materials laid.

**coverage table****Linear metres of joints sealable with one 300 ml Hyper Seal Crystal cartridge**

Depth	Width	5 mm	8 mm	10 mm	15 mm	25 mm	30 mm
5 mm		≈ 12 m	–	–	–	–	–
8 mm		–	≈ 4.7 m	–	≈ 2.5 m	–	–
10 mm		–	–	≈ 3 m	≈ 2 m	–	–
13 mm		–	–	–	–	≈ 0.9 m	–
15 mm		–	–	–	–	–	≈ 0.7 m

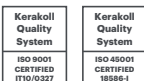
If an estimated coverage value has not been given, it means the joint width/depth ratio is outside the specified limits and the joint cannot be sealed.

<b>Performance</b>		
<b>HIGH-TECH</b>		
Shore A Hardness	10 – 20	ISO 868
Elastic modulus	≈ 0.15 – 0.25 N/mm <sup>2</sup>	ISO 8339
Elongation at break	> 250%	ISO 8339
Tensile strength	0,8 MPa	ASTM D412
Movement capability	25%	
Elastic recovery	> 70%	ISO 7389
Resistance to atmospheric agents	Good	
Resistance to flow at +23 °C	≤ 3 mm	ISO 7390
Resistance to flow at +50 °C	≤ 3 mm	ISO 7390
Shrinkage	≤ 10%	ISO 10563
Working temperature	-50 °C / +90 °C	
Classification EN 15651-1	F-EXT-INT	

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

## Warning

- Product for professional use
- abide by any standards and national regulations
- use at temperatures between +5 °C and +40 °C
- do not use on wet substrates
- protect from rain during the first 2 hours following application
- store in a cold and dry environment
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - [globalservice@kerakoll.com](mailto:globalservice@kerakoll.com)



The Rating classifications refer to the GreenBuilding Rating Manual 2013. This information was last updated in June 2023 (ref. GBR Data Report - 06.23); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see [www.kerakoll.com](http://www.kerakoll.com). KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.