

# HEGGEL® Pox 490

Thixotropic Epoxy Resin Based Bonding Agent

*You Build, We Protect!*

**Description:** HEGGEL Pox 490 is a thixotropic, two-component epoxy resin-based bonding agent, formulated with special fillers. It is free from nonylphenol and offers excellent wetting properties.

**Characteristics:**

- Extreme shear and adhesion strength
- High mechanical resistance
- High abrasion and impact resistance
- VOC < 500 g/l, free of nonylphenol
- Compatible with application on damp substrates
- Easy to mix and application
- Harmless once cured
- Good wetting characteristics

**Application Areas:** HEGGEL Pox 490 is a versatile epoxy resin adhesive which can be used in combination with suitable, prefabricated sealing tapes as membrane sealing systems for construction joints, expansion joints, connection joints, and cracks.

**Chemical Resistance:** It offers excellent chemical resistance to alkalis, diluted acids, saline solutions, water / sewage, mineral oil, lubricants and fuels.

**Application Data:**

<b>Mixing Ratio (Parts by Weight)</b>	A : B = 100 : 50 (2 : 1)		
<b>Colour</b>	Grey Component A white, component B dark grey		
<b>Consumption</b>	~ 1.6 kg/m <sup>2</sup> per 1 mm		
<b>@Temperature</b>	<b>8°C</b>	<b>23°C</b>	<b>30°C</b>
<b>Pot Life</b>	~ 90 min	~ 60 min	~ 30 min

**Note:** The values may vary depending on the mixing intensity and the amount of air entrapped during the process.

**Technical Data:**

Title	Standard	Value
<b>Density (Mix)</b>	@23°C	~ 1.6 g/cm <sup>3</sup>
<b>Solids Content</b>	-	~ 100%
<b>Viscosity (Mix)</b>	@23°C	Thixotropic, no slump up to 20 mm
<b>Compressive Strength</b> (14 days @23°C)	DIN EN ISO 604	~ 55 MPa
<b>Tensile Strength</b> (14 days @23°C)	DIN EN ISO 178	30 - 40 MPa
<b>Modulus of Elasticity</b> (14 days @23°C)	DIN EN ISO 527	~ 3500 MPa
<b>Linear Shrinkage</b>	-	< 1.0%
<b>Thermal Expansion Coefficient</b>	-	~ 45 x 10 <sup>-6</sup> /K
<b>Adhesive Pull-off Strength</b> (On Concrete for 14 days @23°C)	-	Break in the concrete
<b>Adhesive Pull-off Strength</b> (On Shot Blasted Steel for 14 days @23°C)	-	> 10 MPa

**Packaging:** 15 kg pails (10 kg part A + 5 kg part B)

**Storage:** 12 months, sealed in original containers under dry conditions and a temperature of 15 - 25°C. Crystallization may occur at temperatures below 10°C. Please consult HEGGEL!

## 1. Surface Preparation

### 1.1. Concrete / Cement Screed

Before application, all substrates to be bonded must be inspected and tested to evaluate their condition and quality. Surfaces must be clean, dry, and free from contaminants such as cement laitance, dust, oil, grease, and other residues. If necessary, the substrate should be prepared using appropriate mechanical methods such as shot blasting, grit blasting, or grinding with suitable equipment. The substrate must be structurally sound, stable, and have a minimum pull-off strength of 1.5 N/mm<sup>2</sup>. We recommend applying a test area to verify suitability before full application.

### 1.2. Steel / Metal

Prior to application, the substrate must be inspected and tested to assess its condition and quality. It should be clean, dry, and free of contaminants. If necessary, surface preparation must be carried out using qualified mechanical methods such as grinding, grit blasting, or shot blasting, in accordance with DIN ISO 12944-4, preparation grade Sa 2½. The bonding agent should be applied immediately after surface preparation. We recommend applying a test area in advance. The substrate must be stable and free of mill scale, rust, oil, grease, oxidized areas, and any other contaminants.

## 2. Environment Conditions

Before, during, and after application, the substrate temperature must be at least 3°C above the current dew point and should range between 8°C and 30°C. Additionally, ensure that the relative humidity is below 75% at 8°C and below 85% at temperatures above 23°C throughout surface preparation, application, and curing processes.

## 3. Application Tools

- Notched trowel / Scraper
- Electric mixer
- Spiral / can stirrer

## 4. Mixing

Before mixing, ensure that all components are at a temperature between 15°C and 25°C. Mix the components in the correct ratio using a suitable low-speed electric mixer (300-400 rpm) for at least 3 minutes, or until a completely homogeneous and uniform mixture is achieved. Then, transfer the mixed material into a clean container and mix for an additional minute. Use a suitable spiral or can stirrer and maintain a slow mixing speed to minimize air entrapment. Only prepare as much material as can be applied within the specified pot life.

## 5. Application

Distribute the mixture immediately onto the surface, as the ongoing reaction and exothermic heat can significantly reduce the pot life. Apply **HEGSEL Pox 490** evenly using a notched trowel or scraper to ensure uniform layer thickness. While the product offers versatile application options, we recommend conducting a test area beforehand to confirm suitability.

If **HEGSEL Pox 490** is to be overcoated with a suitable coating system, the freshly applied adhesive must be sprinkled with quartz sand.

**Note:** Exposure to UV radiation may cause discoloration.

## 6. Safety Measures

Avoid inhaling vapours and prevent contact with skin. Wear appropriate protective clothing, gloves, and eye / face protection. Ensure adequate ventilation in the working area. In case of skin contact, wash immediately with plenty of soap and water. If contact occurs with the eyes, rinse thoroughly with plenty of water and seek medical attention. Do not eat, drink, or smoke while using the product, and keep away from sources of ignition.

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

**HEGSEL Pox 490**; Revision No: 0.00 / Last Revision Date: 29.01.2025

All information contained herein is based on the current state of our knowledge and practical experience at the time of release. Therefore, please make sure that this is the latest edition of the Technical Data Sheet. All data are only intended as a guideline for informational purposes and do not constitute a legally-binding warranty of the suitability for a certain purpose of use, due to its dependence on site conditions and possible processing, use and applications. All information contained in this technical datasheet is subject to change without notice.

**HEGSEL GmbH**

Huttropstr. 60  
45138 Essen  
Germany

Tel: +49 201 17003 270

Fax: +49 201 17003 277

E-Mail: [info@heggel.de](mailto:info@heggel.de)

Web: [www.heggel.de](http://www.heggel.de)