

# D-33



## Two-component injectable epoxy resin



### PROPERTIES

Two-component, injectable epoxy resin, without solvents. The product is of low viscosity with zero shrinkage. Its fluidity allows for the restoration of fine cracks. It presents high strength adhesion to concrete and steel. It is highly resistant to flexion, compression and acids. It does not get affected by alkalis, frost and moisture. Classified as concrete injection product, per EN 1504-5 and classified R2 per EN 12004.

### APPLICATIONS

D-33 is used as injectable resin into concrete cracks, of 0.1-1mm width. It is recommended for crack repairs on bridges, tunnels, dams, columns, etc. It is suitable for concrete beams that cracked due to overloading, earthquakes, etc. It ensures the complete restoration (original strength) of load bearing elements. It is the most appropriate product for bonding a new to an existing concrete. It is the only solution for anchoring steel rebars in horizontal or vertical existing concrete surfaces. It bonds similar and dissimilar materials with extreme adhesive strength.

### USE

#### 1. Surface preparation

The substrate must be free from any loose materials, dust, oils and standing water.

#### 2. Preparation for application

Mix the two components A and B, at a mixing ratio of 2:1. Use a narrow spatula for approximately 3-4 minutes, until complete homogenization of the mixture is achieved. During the mixing process, try to avoid the entrapment of air into the product.

#### 3. Application

##### a) Resin injections:

Remove any plaster from both sides of the crack and remove all the dust from the concrete using compressed air. Seal throughout the length of the crack using DUROSTICK D-38 epoxy putty, and place nozzles over the crack, spaced every 25cm. Fill vertical cracks using the multipurpose barrel gun, DUROSEAL 600 of DUROSTICK, from the lowest elevation point up. Make sure to cap each nozzle after injecting D-33 epoxy resin.

# D-33



## Two-component injectable epoxy resin

Continue by injecting resin to the next nozzle and so on until finishing.

### b) Rebar anchoring

Make holes larger than the reinforcing rebars (at least 3mm) and as deep as possible. On vertical surfaces, holes should be facing upwards. After removing all the dust, pour just enough D-33, so that the resin will just overflow after the rebar installation.

### NOTES

- Epoxy systems are sensitive to ambient temperature and humidity, until their final cure. Pot life is reduced with increased ambient temperatures. Dull or discolored spots appear on the surface and curing time increases at high humidity conditions.
- After mixing the two components, the mixture temperature increases.
- After hardening, the product is harmless to health and the environment.

### CLEANING

Clean all tools with THINNER 201 of DUROSTICK, immediately after use.

### CONSUMPTION

Crack sealing: 1.1kg for filling volume of 1lt

### STORAGE

Store in tightly closed containers, in dry places and at temperatures of +10°C and above, for at least 12 months from production date.

### SAFETY DIRECTIONS

The product is classified as irritant and corrosive. It is recommended to keep away from the reach of children. Before use, refer to the cautions on the product packaging or the Material Safety Data Sheet.

### PACKAGING

Carton box with 12pcs of 1kg each one (A: 650gr, B: 350gr)

### TECHNICAL SPECIFICATIONS

<b>Chemical base</b>	Two-component epoxy resin
<b>Color (A+B)</b>	Transparent off yellow (A: Transparent B: off yellow)
<b>Viscosity (A+B)</b>	970±100 cP (Brookfield, 20 rpm, spindle No 3)
<b>Density (A+B)</b>	1.10±0.05kg/lt
<b>Mixing ratio A:B</b>	1.9:1 by weight
<b>Pot life</b>	60 minutes at 20°C (shorter time with increased temperatures)
<b>Application temperature</b>	From +5°C to +40°C
<b>Temperature resistance</b>	From -20°C to +100°C
<b>Final strengths</b>	After 7 days at 23°C

### MECHANICAL STRENGTHS

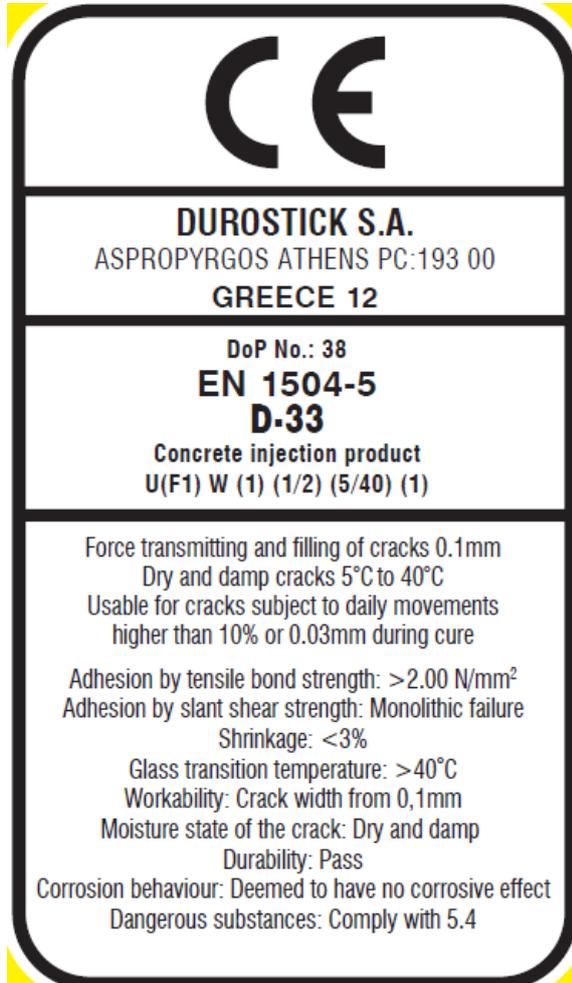
Strength, per EN 196-1, to:

<b>• Flexion</b>	37.00 N/mm <sup>2</sup>
<b>• Compression</b>	72.00 N/mm <sup>2</sup>
<b>Tensile adhesion strength (EN 12618-2)</b>	6.10 N/mm <sup>2</sup>
<b>Corrosive behavior</b>	No

# D-33



Two-component injectable epoxy resin



## DUROSTICK S.A.

MANUFACTURING OF ADHESIVES, PAINTS & MORTARS  
ATHENS: ASPROPYRGOS, ATTICA, GR: 193 00, Tel: +30 211  
60 03 500-599, +30 210 55 16 500, +30 210 55 98 350, Fax: +30  
210 55 99 612  
THESSALONIKI: INDUSTRIAL PARK-SINDOS, S.B. 44,  
STREET, DA 10, GR: 570 22, Tel: +30 2310 795 797, +30 2310  
797 365, Fax: +30 2310 797 367  
Email: info@durostick.com

The technical specifications and directions of use contained in this technical brochure are the results of the knowledge and experience of the company's research and development department, as well as from the real-life applications of the product. The recommendations and suggestions regarding the use of the products are made without guarantee since the respective conditions during their application are beyond the control of the company. For this reason, it is the user's responsibility to make sure that the product is suitable for the intended application as well as the application conditions of the project.