

## TECHNICAL DATASHEET

# ASCOGROUT EP 100

General Purpose, Moisture Insensitive, High Strength, Flowable Epoxy Resin Grout



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## PRODUCT INTRODUCTION

ASCOGROUT EP 100 is a 3 component, 100% solids, VOC free, epoxy resin system designed specifically for pours from 10mm to 200mm. ASCOGROUT EP 100 offers high strength development, chemical resistance and excellent flow characteristics. ASCOGROUT EP 100 flows into spaces under machines and fills completely before hardening. ASCOGROUT EP 100 shows good resistance to impact and will not delaminate under the most severe shock loads.

## KEY FEATURES

1. High compressive strength
2. Excellent flexural strength & vibration resistance
3. Excellent creep resistance
4. Thermal stability during application
5. Excellent adhesion with many substrates
6. High degree of chemical resistance
7. Free flow ensures the high level of contact with bearing area
8. Adjustable flow to meet various onsite conditions
9. Shrinkage free

## RECOMMENDED APPLICATIONS

1. Heavy equipment
2. Anchor bolts and sleeves
3. Heavy compressors, Generators, Crushers
4. Bridge bearings
5. Crane rail and rail track grouting
6. Machine bases
7. Bearing plates
8. Steel columns
9. Wind turbine base plate grouting

## TECHNICAL PROPERTIES

Chemical Base	100 % epoxy resin system
Color	Cement grey flowable mortar
Mixing Ratio	2:1:8 (Part A + Part B + Part C)
Flexural Strength (ASTM D 790)	≥ 28 N/mm <sup>2</sup> (14 Days)
Compressive Strength (ASTM C 579 B)	≥ 40 N/mm <sup>2</sup> (1 Day)
	≥ 60 N/mm <sup>2</sup> (7 Days)
Tensile Strength (ASTM D 638)	≥ 20 N/mm <sup>2</sup> (1 Day)
Bond Strength (ASTM C 882)	≥ 10 N/mm <sup>2</sup> (Concrete Failure)
Bond Strength to Steel	≥ 18 N/mm <sup>2</sup>
Working Time	25 ± 5 minutes
Layer Thickness	50 mm

## APPLICATION METHODS:

### 1. Surface Preparation

The substrate must be firm, dimensionally stable, capable of bearing loads and free of loose constituents, dust, oil, grease, rubber marks and other substances that could interfere with adhesion. Mechanically roughen or abrasive blast concrete substrate. Remove all unsound concrete and provide a profiled, porous surface. Substrate must be dry. Anchors or dowel holes must be dry and contain no water. Do not prime or seal concrete surfaces. Abrasive blast the steel base-plates, sole-plates or any metal that will come in contact and requires bonding with ASCOBOND EP 100. Remove all rust, oils, corrosion inhibitors, corrosion deposits, coatings, or similar that will adversely affect bond. Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. Concrete must be allowed to cure for 28 days and cement render & cement screeds must be allowed to cure for Seven days prior to the application of ASCOGROUT EP 100. The tensile strength of the surface of the substrate must be at least 1.5 N/mm<sup>2</sup> on average (smallest individual value of at least 1.0 N/mm<sup>2</sup>), and the compressive strength must be at least 25 N/mm<sup>2</sup>. Substrates must have reached their moisture balance and must also be protected against moisture penetration from the reverse side, including during use.

### 2. Base Plates

Level and align the base plates, as per the recommendation of a professional engineer and equipment manufacturer. Minimum application depth is related to temperature, length of base plate, and amount of aggregate (Part C) added per unit.

### 3. Form Work

Standard plywood/hard wood, exterior grade wood or metal forming may be used. The forms should be protected with heavy coats of paste wax or form release agent. Wrapping the forms with heavy plastic is acceptable. The form edges must be caulked and sealed to a liquid-tight condition. When placing forms for grouting, it is absolutely necessary that the top of the forms be at least half way up the sides of the base plate thickness or machine base. Placing the grout just to the bottom of the base plate will result in an improper grout job. If the forms cannot be placed half way up the side of the machine base, the minimum distance is 18 mm above the bottom of the machine base plate.

### 4. Mixing

Only mix full kits of the resin/hardener. The Colder temperatures will decrease flow and require the use of less aggregate to help facilitate placement. At elevated temperature &/or at a reduced aggregate loading, the grout flows faster. The depth of pour is another factor which affects the flow rate: the greater the depth of pour, the better ASCOGROUT EP 100 grout will flow. Aggregate loading may vary based on jobsite conditions and therefore adjustments may be required. Do not exceed reduced aggregate. Care should be taken to ensure that the entire kit is poured before the working time elapses. Pre-mix Part A Epoxy Resin and Part B Epoxy Hardener, either by hand or slow speed drill or mixer. Combine the Part B into the Part A, scraping the sides of the Part B to ensure complete transfer of hardener. Mix either by hand or slow speed drill or slow speed drill or mixer for 2 – 3 minutes or until homogeneous. Scrape sides of mixing can to ensure complete dispersion of resin and hardener. Over mixing or mixing at greater than 250 RPM will entrap air causing flow and the effective bearing area to be adversely affected.

## 5. Placing

The working and / or pouring time will depend on grout and ambient temperature. The working time will decrease as temperature increases. Pouring the grout through a head box increases the flow rate noticeably. To maintain adequate flow and proper placement at air and / or substrate temperatures below 27°C, the aggregate loading has to be reduced for colder temperature per kit.

## 6. Curing

Full cure is reached in 7 days after the application at a constant temperature of 27° C.

### 1. Health and Safety Guidelines

- i. Wash all tools & equipment in warm soapy water or appropriate solvent immediately after use.
- ii. Avoid breathing of vapors. DO NOT WELD ON, BURN OR TORCH NEAR OR ON ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED. Avoid skin or eye contact.
- iii. Wash skin with soap & water if contact occurs. If eye contact occurs, flush with water for 15 minutes and obtain medical attention.
- iv. Read and understand all cautions on can labels & safety data sheets before using this material.

## 7. Packaging

Available in 11 Kg kit.

## 8. Shelf Life

12 months from the date of production if stored in original, unopened packaging and in places protected from moisture, sun exposure and frost.

### DISCLAIMER:

*While the technical details & recommendations contained in this document and the related details given by the representatives of the company correspond to the best of our knowledge & experience, all the above information must in any case be considered as merely indicative and subject to confirmation. Users are recommended to conduct a product suitability test before it is used at full scale. In any case, the consumer alone is entirely liable for any consequences resulting from using the product. For the most up-to-date TDS, please visit our website at [www.ascolite.in](http://www.ascolite.in). Our company policy is one of ongoing R&D; therefore, we reserve the right to update this information without prior notice at any time. As the correct identification of the problems, the quality of other materials used, on-site environmental conditions and the workmanship on-site are factors beyond our control, there is no express or implied guarantee/warranty as to the results achieved. The company assumes no liability or consequential damage arising from the use of our products for unsatisfactory results. Site visits are not a supervisory responsibility wherever provided. Suggestions made either verbally or in writing by the company may be followed, modified or rejected by the owner, engineer or contractor, since they are solely responsible for carrying out procedures appropriate to a specific application.*