

Conbextra EP

A range of epoxy grouts for dynamic / repetitive load applications with good chemical resistance (0.25 mm - 120 mm)

USES

A range of free flow grouts for use in situations where heavy dynamic or mobile loads are encountered. The gap between a base plate and substrate needs to be filled and the structural load be uniformly distributed, in such applications as reciprocating machinery, testing equipment, heavy crane and transporter rails, high speed turbines, centrifuges and drop forges.

Also for use in conditions where chemical spillage may be encountered. Typical situations could be met in steelworks, refineries, electroplating works and chemical plants.

Conbextra EP120 is especially suitable where long working time and/or low exotherm properties are required e.g. for large pours, large gaps or high ambient temperatures.

ADVANTAGES

- High compressive, tensile and flexural strengths
- Resistant to repetitive dynamic loads
- Fast, convenient installation with early strength gain
- Withstands a wide range of chemicals
- Non-shrink and hence ensures complete surface contact and bond
- Low creep characteristics under sustained loading



DESCRIPTION

Conbextra EP is a range of epoxy resin based products designed for free-flow grouting of gaps from approximately 0.25 mm - 120 mm. Four grades of product are available.

Conbextra EP10 for grouting gaps ranging from 0.25 mm - 10 mm. It is an all liquid system consisting of a base and hardener.

Conbextra EP40 for grouting gaps ranging from 10 mm - 40 mm.

Conbextra EP65 for grouting gaps ranging from 35 mm - 65 mm.

Conbextra EP120 is a low exotherm material which is particularly suitable where long working time is needed; for large gaps (up to 120 mm) or for grouting at high ambient temperatures (up to 55°C).

TECHNICAL SUPPORT

Parchem offers a comprehensive range of high quality, high performance construction products. In addition, Parchem offers technical support and on-site service to specifiers, end-users and contractors.

CHEMICAL RESISTANCE

All Conbextra EP products are resistant to oil, grease, fats, most chemicals, mild acids and alkalis, fresh and sea water. Consult Parchem Technical Services when exposure to solvents or concentrated chemicals is anticipated.

PROPERTIES

The following results are typical for the hardened grout at 20°C.

Test method for:	Typical result			
	EP10	EP40	EP65	EP120
Density (kg/m ³):	1060	1950	2050	1950

Compressive strength (MPa)				
AS 1478.2 2005				
1 day:	57	79	77	5
3 days:	66	86	89	40
7 days:	83	91	90	60
28 days:				75

Typical site results @ 23°C				
Compressive Strength (MPa)				
	EP10	EP40	EP65	EP120
3 Hours:	-	30	20	-
4 Hours:	-	45	35	-
5 Hours:	-	55	50	-

Tensile strength (MPa)				
BS 6319 part 7 1985				
7 days:	29	19	15	-

Flexural strength (MPa)				
BS 6319 part 3 1990				
7 days:	91	40	29	-

Secant modulus (GPa)				
BS 6319 part 6 1984:				
		13.3	13.3	-

POT LIFE

Ambient temperature affects the time for which bulk material will remain fluid.

Typical values in minutes are:

	10°C	20°C	30°C	40°C
EP10	40	20	10	-
EP40	60	30	15	-
EP65	60	30	15	-
EP120	-	120	90	50

EXOTHERM

All epoxy systems will develop a temperature rise on mixing. Its extent will be a function of the volume to surface ratio, the ambient temperature, as well as the mass and thermal conductivity of the surrounding materials. Contact Parchem for specific data on each product.

SPECIFICATION CLAUSES

Supplier specification

All epoxy resin grouting where shown on the drawings, must be carried out using the suitable grade of Conbextra EP product manufactured by Parchem and used in accordance with the manufacturer's Technical Data Sheet.

PERFORMANCE SPECIFICATION

All epoxy resin grouting where shown on the drawings must be carried out with a factory packed product. The hardened grout must have a compressive strength which exceeds 60 MPa at 7 days, a tensile strength which exceeds 15 MPa at 7 days and a flexural strength which exceeds 28 MPa at 7 days.

The storage handling and placement of the grout must be in strict accordance with the manufacturer's instructions.

INSTRUCTIONS FOR USE

FOUNDATION SURFACE

All contact surfaces must be free from oil, grease, free standing water or any loosely adherent material. Concrete surfaces should be cut back to a sound base. All dust must be removed and bolt holes or fixing pockets blown clean of any dirt or debris.

STEEL SURFACES

All steel surfaces should be shot blasted free of rust, paint and flaky mill scale.

FORMWORK

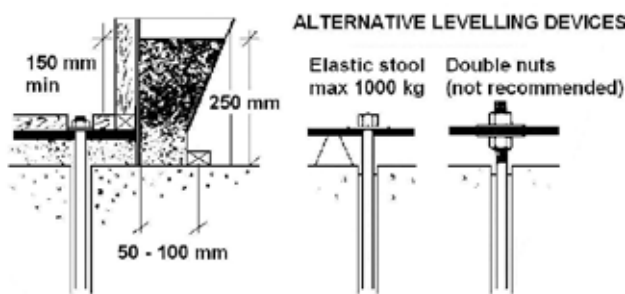
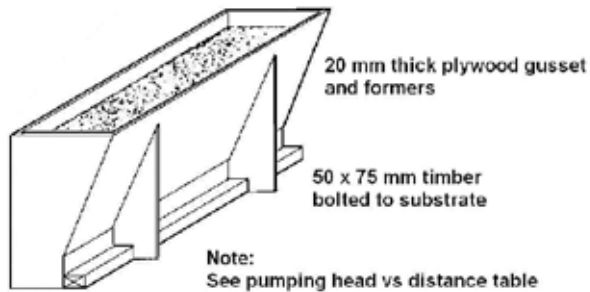
The formwork should be constructed to be leakproof as Conbextra EP products are free flowing grouts. Loss of grout once the material is placed, but not hardened, will result in incomplete filling of the gap.

For free flow grout conditions it is essential to provide a hydrostatic head of grout. To achieve this a feeding hopper system should be used.

MIXING

Pour all the contents of the hardener pack into the base container. Mix using a slow speed power mixer until homogeneous.

For all products, mix using a slow speed power mixer for two minutes or until a uniform colour is achieved in the grout.



Typical on-plate shutter system

PLACING

The mixed grout should be poured steadily from one side only to eliminate the entrapment of air.

Continuous grout flow is essential.

Sufficient grout must be available prior to starting.

The time taken to pour a batch should be regulated to the time taken to prepare the next batch.

FLOW CHARACTERISTICS

The maximum distance of flow is governed by the gap thickness, the head of grout applied and the ambient temperature. The following table gives typical data for flow design.

	°C	Gap thickness (mm)	Hydrostatic head (mm)	Maximum flow (mm)
EP10:	Flow determined by gap thickness and pressure applied			
EP40:	5	12	100	450
	20	12	100	900
EP65:	5	35	100	900
	20	35	100	2000
EP120:	Similar to Conbextra EP65			

CLEANING

All tools and equipment should be cleaned immediately after use with Parchem Solvent. Spillages should be absorbed with sand or sawdust and disposed in accordance with local regulations.

TEMPERATURE

DURING APPLICATION

For all products except EP120, grouting may be carried out without special precautions at ambient temperatures from 5° - 25°C.

For EP120, grouting should not be carried out at temperatures below 10°C.

IN SERVICE

The cured grouts, which are completely resistant to frost and sub-zero temperatures, are suitable for use up to 45°C. EP120 is most suited for temperatures in the range 10° to 55°C.

ESTIMATING

SUPPLY

EP10:	300 ml and 1.5 litre	2 component packs
EP40:	15 litre	2 component packs
EP65:	14 litre	2 component packs
EP120:	14 litre	2 component packs

STORAGE

All Conbextra EP products have a shelf life of 12 months if kept in dry conditions at 20°C.

For further information on any of the above, please consult with your local Parchem sales office.

ADDITIONAL INFORMATION

Parchem provides a wide range of complementary products which include:

- concrete repair – cementitious and epoxy
- grouts and anchors – cementitious and epoxy
- waterproofing membranes – liquid applied, cementitious and bituminous sheet membranes
- waterstops – pvc and swellable
- joint sealants – building, civil and chemical resistant
- industrial flooring systems – cementitious and epoxy
- architectural coatings
- filler boards – swellable cork, bituminous and backing rod
- ancillary products

For further information on any of the above, please consult with your local Parchem sales office.

IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

PRODUCT DISCLAIMER

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

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