

# Konudur 160 PL-XL

Epoxy resin

for CIPP liner systems of house connection pipes and smaller main sewers



## PRODUCT PROPERTIES

- Low-viscosity, two-component epoxy resin
- Yellow pigmentation, unfilled resin system
- Long application time
- High strengths with cold and warm curing
- Shorting curing times can be obtained by warm curing
- Good adhesion to concrete, brick and ceramics
- Can be applied to dry and moist mineral or metallic substrates
- System components with DIBt approval Z-42.3-396 (Konudur Homeliner CIPP lining method)

## AREAS OF APPLICATION

- Impregnation and fulling of polyester needle felt tubes for CIPP liner systems
- No-dig rehabilitation of defective sewer pipes and ducts (house connection pipes and smaller main sewers)
- Rehabilitation methods for underground sewer pipes and ducts
- REACH-assessed exposure scenarios: periodical inhalation, application, long-term water-contact

## APPLICATION ADVICE

**Substrate Preparation:** See the data sheet “General Application Advice for CIPP Liner Systems”.

**Mixing:** See the data sheet “General Application Advice for CIPP Liner Systems”. Konudur 160 PL-XL epoxy resin is made up of a base (component A) and a hardener (component B). The two components must be carefully mixed to a uniform consistency using a slow-running mechanical stirrer or a suitable static mixer. Mixing by hand and the mixing of partial quantities is not allowed.

**Mixing ratio:** See the “Technical values & product properties” table. The primary and hardener components are supplied in packs containing proportionate amounts. Where the components are supplied in drums, the settings on the mixing plant must ensure the correct mixing ratio.

**Application:** See the data sheet “General Application Advice for CIPP Liner Systems”.

**Curing / release:** See the data sheet “General Application Advice for CIPP Liner Systems”. For curing / release, see the data in the “Technical values & product properties” table. Curing can take place under ambient conditions as well as under heat supply (10-80°C).

**General Information:** The stated times are shortened by high temperatures and increased by low temperatures. A 10 K temperature change doubles or halves the stated times. That is not valid for warm hardening. See also the data sheet “General Application Advice for CIPP Liner Systems”.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	mass fractions	3 : 1	comp. A : comp. B
Density	kg/l	approx. 1.15	component A
		approx. 0.96	component B
		approx. 1.13	mix
Application conditions	°C	≥ 10 ≤ 30	air and substrate temperatures
		≥ 15 ≤ 20	material temperature
1)		80	max. heating temperature
Viscosity	mPa · s	approx. 3,000	component A
		approx. 265	component B
Working time	minutes		
10 kg container	minutes	approx. 60	at 15°C material and ambient temperature
2)	hours	approx. 3.5	at 15°C material and ambient temperature
Minimum full curing time	hours		of the impregnated 3 mm polyester needle felt until installation pressure can be released
		approx. 24	at 10°C ambient temperature
		approx. 3	at 50°C heating temperature
		approx. 1	at 80°C heating temperature
E-modulus	N/mm <sup>2</sup>		EN ISO 178
		approx. 2,500	pure resin values
Flexural strength	N/mm <sup>2</sup>		EN ISO 178
		approx. 91	pure resin values
Tensile strength	N/mm <sup>2</sup>	approx. 61	EN ISO 527
Resilient after (mechanically)	days	approx. 7	
Resilient after (chemically)	days	approx. 7	

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

1) Please also ensure compliance with the technical data sheet relating to the carrier material.

2) des getränkten, der Länge nach ausgelegten Polyesternadelfilz (3mm)

equipment cleaning agent	MC-Reinigungsmittel U (cleaner)
colour shade	yellow
delivery form	30 kg pair of containers 200 kg drum
Storage	Can be stored in original sealed packages at temperatures between 5°C and 20°C in dry conditions for at least 12 months.
packaging disposal	Make sure single-use containers are completely empty. Ensure compliance with our information leaflet "Return of Emptied Transportation and Sale Packaging". We will be glad to send you this on request.

### Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : RE30

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2100004334]