

| generalities: | Bicomponent epoxy based binder with hardener of amino nature, not containing solvents, RTC and which has a very quick curing time on liner and a wide working time (Pot Life).   |       |      |       |  |  |
|---------------|--|-------|------|-------|--|--|
| properties:   | Low viscosity, medium/high vitreous transition, low thixotropy, pigmented, cures in presence of water. Formulated with the aim of obtaining the most quick curing and keeping a long curing time. The epoxy system UNITEC 118 has been developed to offer the best curing performances even at low temperatures without the short times of the Pot Life typical of the winter quick epoxy systems and allows a long working time. Due to its long Pot Life the system can be used for the most part of the year in ambient temperatures from 10°C to 25°C. |       |      |       |  |  |
| applications: | As impregnating binder for tissues, specific for pipes relining techniques, compatible with pipes very wet and with water.   |       |      |       |  |  |
|               | component  | Α     | В    | A + B |  |  |
| delivery- Kg: |  | 8,00  | 2,00 | 10    |  |  |
|               |  | 16,00 | 4,00 | 20    |  |  |

| feature - test                               | reference<br>norms | measure<br>unit    | value      |
|--|--------------------|--------------------|------------|
| Specific weight at 23 ± 2°C                  | ASTM D 792-66      | Kg/dmc             | about 1,20 |
| Ponderal dry residuum                        | ASTM D 2697        | %                  | 99,8       |
| Stoichiometric ratio in weight               | ERL 13-70          | A : B =            | 80 : 20    |
| Viscosity 25 ±2°C Comp. A                    | BROOKFIELD r6g50   | mPa <sup>·</sup> s | 2750       |
| Viscosity 25 ±2°C Comp. B                    | BROOKFIELD r6g50   | mPa <sup>·</sup> s | 820        |
| Pot life (100 gr at 20 ±2°C)                 | ERL 13-70          | minutes            | about 45   |
| Curing time mm 2 at 20 ±2°C (only resin)     |                    | hours              | about 5,30 |
| Curing time on FAP 400 at 20±2°C             |                    | hours              | about 3,50 |
| Curing time on FAP 400 at 10±2°C             |                    | hours              | about 7    |
| Curing time in mass a 20±2°C (thickness 1cm) | ERL 13-70          | minutes            | about 100  |
| Unitary breaking load for flexotraction*     | ASTM D 790         | MPa                | > 75       |
| Unitari breaking load for traction*          | ASTM D 638         | MPa                | >35        |
| Elastic module for flexotraction*            | ASTM D 790         | GPa                | >2,6       |
| Max TG*                                      | ASTM D 3418        | °C                 | >90        |
| *with 2 hours post cure at 80°C              | ASTIVID 3410       | C                  | 1 00       |

\*with 2 hours post cure at 80°C

The results of the tests are obtained in laboratory and are indiabouttives for the use of the material, but they are not to be considered as guarantee..

## **UNITEC 118**

technical / application data sheet

| mixing ratio           | A :B = 80:20  Percentage ratio of hardener on base = 25%  The components A+B are delivered in pre-wheighted doses, ready for use   |  |  |  |
|------------------------|--|--|--|--|
|                        | The components A-B are delivered in pre-wrieignied doses, ready for use  |  |  |  |
| mixing                 | First mix separately the single components A and B and after mix together the components A+B until a perfect homogenizing is reached. Use Cowles mixers or similars.   |  |  |  |
| use                    | On liners made of natural or synthetic fibers It is very important that the liners are dry.  |  |  |  |
| application            | For liners impregnation with pinch rollers or similars   |  |  |  |
| temperatures<br>of use | <ul> <li>Lowest +1°C: At lower temperatures the working with the product is more difficult for the increase of the viscosity.</li> <li>Highest +20/25°C: At higher temperatures the product may drastically lower the Pot Life times. It is therefore advisable to cool the mixture before the use</li> </ul>  |  |  |  |
| storage                | Store the well closed and original cans in dry warehouses at temperatures between +10°C and + 30°C.  When the resin is not completely used do not leave open the can of component B. By doing the performances of the product remain inaltered for long time  High temperatures favour the deposit at the bottom of the cans. Do not apply the product before having well remixed the deposit  Low temperatures may cause the crystallization of the component A. The product can be brought back to the original liquidity without any inconvenient by applying to the product a moderate heating ( 50°/60°C ). |  |  |  |
| Cleaning of the tools  | With solvent specific for epoxy systems  |  |  |  |
| heigiene               | It is important to handle the product by adopting the necessary precautions and by wearing suitable protectives garnments (see the safety sheets)  |  |  |  |
| disposal               | Do not dispose in the environment the empty pots and cans but dispose them in accordance to the national laws in force   |  |  |  |