## DATA SHEET UV CURING PULLING SPEEDS – VINYLESTER RESIN



| Liner: lineTEC ProFlex  Resin: Vinylester Resin  Watts // Nominal Diameter (DN) | Pulling Speeds in m/min |                     |            |          |            |                      |                    |     |
|---|-------------------------|---------------------|------------|----------|------------|----------------------|--------------------|-----|
|   | Closed End              | Open End<br>300/400 | Closed End | Open End | Closed End | Opend<br>End<br>1200 | Resin Con.<br>(kg) |     |
|   |                         |                     |            |          |            |                      |                    | 100 |
| 125   | 0,20                    | -                   | 0,50       | 0,30     | -          | -                    | 1,40               |     |
| 150   | -                       | -                   | 0,40       | 0,20     | 0,70       | 0,50                 | 1,79               |     |
| 200   | -                       | -                   | 0,30       | 0,20     | 0,50       | 0,30                 | 2,33               |     |

| Liner: lineTEC ProFlex XT  Resin: Vinylester Resin  Watts // Nominal Diameter (DN) | Pulling Speeds in m/min |                     |            |          |            |                      |                    |     |
|--|-------------------------|---------------------|------------|----------|------------|----------------------|--------------------|-----|
|  | Closed End              | Open End<br>300/400 | Closed End | Open End | Closed End | Opend<br>End<br>1200 | Resin Con.<br>(kg) |     |
|  |                         |                     |            |          |            |                      |                    | 100 |
| 125  | 0,15                    | -                   | 0,40       | 0,20     | -          | -                    | 1,69               |     |
| 150  | -                       | -                   | 0,30       | 0,20     | 0,50       | 0,30                 | 2,20               |     |
| 200  | -                       | -                   | -          | -        | 0,30       | 0,15                 | 2,79               |     |

| Liner: lineTEC ProFlex S UV  Resin: Vinylester Resin  Watts // Nominal Diameter (DN) | Pulling Speeds in m/min |                     |            |          |            |                      |                    |     |
|--|-------------------------|---------------------|------------|----------|------------|----------------------|--------------------|-----|
|  | Closed End              | Open End<br>300/400 | Closed End | Open End | Closed End | Opend<br>End<br>1200 | Resin Con.<br>(kg) |     |
|  |                         |                     |            |          |            |                      |                    | 100 |
| 125  | 0,30                    | 0,10                | 1,00       | 0,70     | -          | -                    | 1,54               |     |
| 150  | 0,20                    | -                   | 0,80       | 0,60     | > 1,00     | 1,00                 | 1,97               |     |
| 200  | -                       | -                   | 0,70       | 0,50     | 1,00       | 0,80                 | 2,56               |     |

| Liner:<br>lineTEC Glass Liner     | Pulling Speeds in m/min |          |            |          |            |              |            |
|-----------------------------------|-------------------------|----------|------------|----------|------------|--------------|------------|
| Resin:<br>Vinylester REsin        | Closed End              | Open End | Closed End | Open End | Closed End | Opend<br>End | Resin Con. |
| Watts //<br>Nominal Diameter (DN) | 300/400                 | 300/400  | 600        | 600      | 1200       | 1200         | (kg)       |
| 100                               | 0,60                    | 0,40     | > 1,00     | 1,00     | -          | -            | -          |
| 150                               | 0,40                    | 0,20     | 0,80       | 0,60     | > 1,00     | 1,00         | -          |

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## **Application Notes Vinylester Resin**

The data given is based on installation tests in cleaned KG pipes at an ambient temperature of 20° Celsius. Curing took place by means of SewerTronics SpeedyLight with new LED heads in each case in the stated wattages.

The specified tensile speeds allow complete curing of the resin under these conditions. In case of deviating conditions, such as the presence of extraneous water or impaired luminosity of the LED heads etc., it is recommended to reduce the pulling speed by up to 50% to achieve complete curing and adhesion with the old pipe.

For pipes with dimensional changes, the pulling speed corresponding to the respective dimension can be used. If the position of the dimensional change within the pipe cannot be determined exactly, it is advisable to select the pulling speed according to the respective larger dimensional size.

Please note that after curing, the laminate may have a temperature of up to 90° Celsius due to the exothermic reaction. To minimize the risk of creating an annular gap, it is recommended to keep the liner under pressure during a cooling phase of approx. 30 minutes since this significantly reduces tensions stemming from thermal differences.

To enable solid adhesion and/or a good frictional connection, it is essential that the pipes are sufficiently cleaned, ideally even slightly roughened.

Compaction of the laminate (liner & resin) is favored by installation with an inversion or curing pressure of 0.2 bar above the recommended curing pressure of the liner used. The liner must not be used for this purpose. For liners suitable for dimensional changes, increasing the inversion pressure (at least briefly, if necessary) favors stretching of the textile and thus dimensional adaptation.

Pre-impregnation of the liner during preparation for installation is possible. The timely extent to which pre-impregnation can precede installation depends on the resin used and should therefore be checked by the user.

Please note that the curing of the resin is already triggered by ambient light. It is therefore important to protect both the container and the impregnated liner as best as possible from exposure to light.

Please refer to the respective safety data sheets.

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Errors and omissions excepted. Please note the current status of this data sheet, available at "www.linetec.info/downloads".