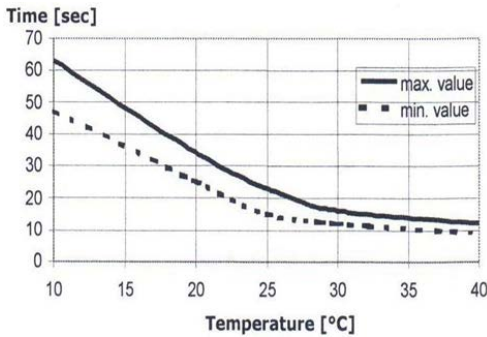
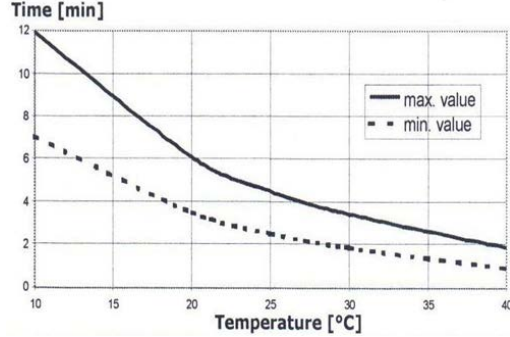



Technical Data Sheet

Description		
FASLOC® Resin Cartridge Type E		
Application		
<p>The FASLOC® Resin Cartridge is used to anchor bolts to the different ground conditions. The consolidation of the resin, the anchor bolt and neighboring stratum provides the necessary strength and rigidity to prevent sag by acting as a reinforcement which anchors the individual stratified layers of rock into a single high strength beam.</p> <p>Typical application fields are:</p> <ul style="list-style-type: none"> ▪ Anchor fastening of mine workings; ▪ Fixing the overlying stratum; ▪ Fixing of heavy equipment and more. 		
Technical characteristics		
<p>The following laboratory data may be different in practice due to the heat exchange between the resin and filler, pressure and other factors.</p>		
Charatcteristic	FASLOC® Cartridge Type E-25	FASLOC® Cartridge Type E-180
Setting time (25°C)*	10 – 25 [s]	120 – 180 [s]
Additional setting time	5 – 10 [s]	30 – 60 [s]
The compressive strength after 24 h / 25° C	not defined	> 70 [MPa]
The compressive strength after 24 h / 40° C	not defined	> 75 [MPa]
The elastic modulus (dynamic) after 24 h	not defined	> 15 [GPa]
Average density	ca. 2.000 [kg/m³]	ca. 2.000 [kg/m³]
The colour of the ampouls by the hardener code and holding device	red	yellow, green
<p>* Other setting time on request.</p> <p>At a temperature of 15°C instead of 25°C, the curing time may increase up to double (200%) and at a temperature of 30°C, it falls to 70% (see diagrams)</p>		
<p>FASLOC® Cartridge Type E-25 (lab value)</p> 		<p>FASLOC® Cartridge Type E-180 (lab value)</p> 

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Dimension of the following types are available

Diameter 25 [mm]		Diameter 28 [mm]		Diameter 32 [mm]	
Length [mm]	Volume [ml]	Length [mm]	Volume [ml]	Length [mm]	Volume [ml]
300	147	300	185	300	241
500	245	500	308	500	402
600	294	600	370	600	482
700	368	700	462	700	604

Composition and properties

The ampoules containing resin mastic and hardener in separate chambers formed from a multilayer plastic film. Resin mastic contains an unsaturated polyester resin filled with minerals and specialty supplements. Hardener that is painted in the appropriate color contains organic peroxide. The ampoule is closed on both sides with copper clamps. In the standard ampoule comes with a clamp that holds the inserted ampoule from slipping out of the hole.

Installation

General Installation Instructions.

- The installation procedure should be followed carefully to ensure successful application of FASLCO® Resin Cartridges Type E.
- Various factors affect installations. These instructions are general guidelines. Mine tests must be conducted with bolts to determine actual “mix” and “hold” times.
- Bolts should be installed as soon as possible in newly-exposed roof. Roof that has shifted or sagged offers least chance for successful support.
- Do not use ruptured or broken cartridges.
- The relationship between borehole dimension, bolt size and the size and number of cartridges is critical to good performance. Your DSI representative will be glad to assist in determining the proper combination for specific applications.

Installation Procedure

- 1) Insert necessary FASLOC® Resin Cartridge Type E into the hole.
- 2) Push the bolt into the hole to a point just below the roof line. Slow rotation of the bolt during insertion is optional.
- 3) Rotate the bolt.
- 4) Next installation step depends on the product.
 - a) *Fully Grouted Bolts:* Push the bolt upward with the maximum thrust available from the machine and hold until FASLOC® Resin hardens. Note: Do not rotate after Step 3. Damage to partially gelled resin may result.
 - b) *Tension Rebar & Combination Bolts:* Hold the bolt until the resin has hardened. This period of strength development will vary depending on gel time, product temperature and mine conditions. When resin has hardened, rotate the bolt until the desired torque is developed.
 - c) *Expansion Shell Anchor Bolts:* When FASLOC® Resin is used to supplement Expansion Shell Anchor Bolts, spin to lock.

Risk and safety work with FASLOC® Resin Cartridge Type E

- Do not open or puncture cartridge. Safety glasses or eye shield should always be used when roof bolting is done. In case of eye contact, immediately flush with plenty of water for several minutes. Call a physician!
- In case of skin contact, flush skin with water and soap immediately.
- For complete safety information, refer to the Material Safety Data Sheet.

Packaging & Standards for Resin Cartridge

Resin Cartridges are distinguished by setting time, diameter and length. The designation code indicates the total installation time in seconds, the length and the diameter in millimeters. Resin Cartridges are packed into hard boxes in accordance with European transport regulations. The marking on the lid of the box red for FASLOC® Cartridge Type E-25 and FASLOC® Cartridge Type E-180 white.

Reaction time by code [s]	Diameter [mm]	Length [mm]	Packaging [mm] x [mm] x [mm]	Pieces in packing [-]	Weight [kg]	
25	180 ¹⁾	25	300	64 x 16 x 16	40 / 50	10.0 / 12.0
25	180	25	500	64 x 16 x 16	20 / 25	10.0 / 12.5
25	180	25	600	64 x 16 x 16	20 / 25	12.1 / 14.8
25	180	25	700	74 x 16 x 16	20 / 25	15.0 / 18.7
25	180	28	300	64 x 16 x 16	40	15.1
25	180	28	500	64 x 16 x 16	25	12.6
25	180	28	600	64 x 16 x 16	25	15.1
25	180	28	700	74 x 16 x 16	20	18.7
25	180	32	300	64 x 16 x 16	30	15.2
25	180	32	500	64 x 16 x 16	15	12.8
25	180	32	600	64 x 16 x 16	15	15.2
25	180	32	700	74 x 16 x 16	15	19.1

1) Standard cartridges are printed in bolt type.

Storage and shelf life

During the six months when stored in a dry place at a temperature of 0 °C and 20 °C. With the passage of time, especially at temperatures > 25 °C can be a substantial loss in volume due to migration of styrene, which, however, does not affect the characteristic of curing the resin.


However, we do not recommend storing resin cartridges longer than the 3 months and above 25 °C. The maximum temperature does not affect the performance properties should not exceed 36 °C for 3 days. Resin Cartridges should not be exposed to sunlight, as this may reduce the shelf life. Operating temperature must be above 15 °C. This is why we recommend you before using to put resin cartridges in a warm place, so that would be the ampoule can adapt to the required temperature.

Disposal

Damaged resin cartridges must be neutralized by mixing the components. Processed mastic is neutral with respect to the environment and can be disposed of as household waste (EC waste code 20 01 39 "plastic waste"). Not cured ampoules disposed of as special waste (EU-waste code 080409 "sealants and adhesives with organic solvents").

Disclaimer

Please note: this technical data sheet serves basic information purposes and is for customer use only. Technical data and information provided herein shall be considered non-binding and may be subject to change without notice. We do not assume any liability for losses or damages attributed to the use of this technical data and any improper use of our products. Personnel working with DSI's Resin Cartridge for rock bolts must be task-trained properly in advance. Instructions of DSI's supervisors must be obtained in any case. Should you require further information on particular products, please do not hesitate to contact us.

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