



LIGHTWEIGHT CONSTRUCTION

THE HEAVYWEIGHT OF THE FUTURE: SILICONE TUBES FOR
MANUFACTURING FIBRE-REINFORCED STRUCTURAL COMPONENTS

CONSERVE RESOURCES

USE THEM EFFICIENTLY

FIRST CLASS TECHNOLOGIES FOR OPTIMUM PROCESSES

The availability of fossil fuels is limited - energy requirements are increasing. It's time for a rethink and, first and foremost, to act. The responsible, efficient use of natural resources is one of the most important tasks for sustainable development.

REHAU meets this challenge with the development of economically and ecologically-worthy systems, particularly in the areas of lightweight construction, the production of structural components or high performance fibre composites.

Structural components are primarily used in places where a highly durable, lightweight component is required. e.g. in

- the aviation industry
- the automotive sector
- wind power technology
- or the area of sport and leisure

Here various production processes - such as RTM (Resin Transfer Moulding) - are used. The RTM process is a pressurised resin injection process with closed moulds. The products manufactured using this process have an absolutely homogeneous structure, are highly compressed and have the best possible mechanical properties.

SILICONE TECHNOLOGY

IN THE RESIN TRANSFER MOULDING (RTM) PROCESS

RAUSILAM FG

The RAUSILAM FG tube is used in the RTM process to insert the resin into the tool, feeding the resin between the storage tanks and the mould. The advantage of using REHAU silicone tube is in its properties of temperature resistance, plasticiser-free, high burst pressure and flexibility.

The outstanding attributes of the RAUSILAM FG tube have been independently tested. This tube is used successfully by well-known 1st tier suppliers from the aviation industry.

Advantages of the RAUSILAM tube

- High safety with regard to temperature resistance, short-term up to 180°C
- Resistant to heat and pressure
- Plasticiser-free compared to other flexible tube systems
- Reduction in volatile components due to annealing during production, as a result almost no migration into/impurities in the resin
- Guaranteed good sliding properties without the use of talc
- High flexibility due to the PES filament reinforcement
- Possibility to check/monitor the burst pressure
- Non-talc-coated and transparent solution, therefore no impurities in the resin due to the talc and full monitoring of the flow of the resin with regard to impurities, blistering and pre-crosslinking possible



TECHNICAL DATA AT A GLANCE

Mat. No.	Dimensions (mm)	Permitted burst pressure (bar at 20 °C) based on DIN ISO 1402	Make-up for delivery
1807388	8 x 13.6 d *	≥ 40	50 m coils

* Other dimensions on request

The inner tube and the sheath are made from annealed, peroxide-crosslinked silicone rubber.

These qualities meet the recommendations of the BgV XV and FDA CFR § 177.2600.

Special reinforcements are available for increased requirements on burst pressure and temperature-resistance.

Other components for the RTM process, for example tool seals made from silicone, are available on request.

**Do you have any questions, or would you like to arrange a visit?
Then please contact us.**

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