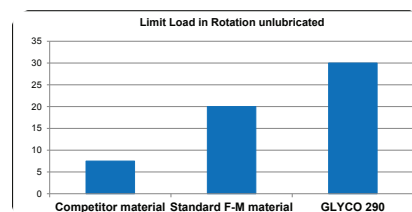
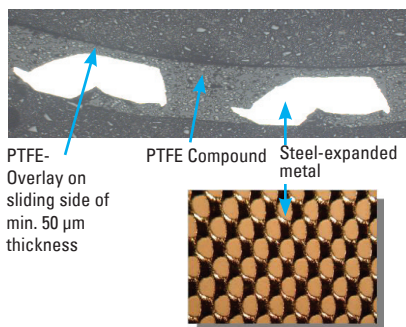


Space-saving dry bearing material for high load capacity and wear resistance requirements



GLYCO® 290 flange bushings



Improved load capacity of GLYCO® 290 compared to standard F-M dry running material and competitor material

Challenge

Provide a solution for dry applications with minimum installation space but requiring also high load capacity and wear resistance, like door hinges and seat mechanisms.

Despite the thin wall and the necessary flexibility for a flange bushing production and a zero-clearance assembly, the material shall provide enough rigidity to ensure a sufficient press fit of the bushing inside the housing.

Solution

GLYCO® 290 is a material using a combination of PTFE and thermoplastic materials impregnating an expanded steel structure with a thickness of 0.5 mm only.

The steel-expanded metal is considerably more rigid than a bronze mesh-based thin bushing, allowing press-fitting and automated assembly with a high corrosion protection optionally through stainless steel.

Temperature range from -200 to 260 °C.

Key Features

- Thermoplastic for high load capacity and wear resistance combined with PTFE for low friction reduction, flexibility and use in unlubricated applications.
- Clearance-free installation due to high degree of flexibility enables reaching defined torque range together with press-fit.
- Very small installation space (0.5 mm wall)
- Cost efficient compared to conventional materials with porous bronze.
- Optionally high corrosion resistance with G-290 in case of stainless steel structure.

Benefit	Details
High Load capacity	static: max. 250 MPa dynamic: max. 120 MPa
Low wear rate and low friction at high load under unlubricated conditions	Rotation: < 0.9 µm/km at 15 MPa load under dry conditions* Friction: < 0.09 at 12.5 MPa load under dry conditions* *Standard F-M test conditions
Minimum press-out force	Force: min. 100 N, max. value reachable depending on bushing width

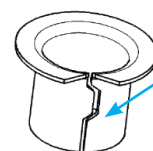
Additional Information

GLYCO® 290 is based on a steel-expanded metal impregnated and covered with a highly loadable polymer compound based on PTFE and thermoplastic materials giving improved wear and friction properties under dry running conditions. On the back of the material the expanded metal is partially exposed.

Only 0.5mm thick, G-290 provides a premium solution for applications where conventional rigid bushings (above 0.7mm) are too thick and mesh-based thin bushings are too flexible to allow press-fitting and automated assembly.

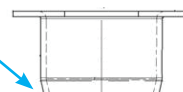
Applications:

- Hinges for doors, hoods, trunk lids, convertible tops.
- Seat mechanisms (adjusters) and seat frame joints, belt tensioners.
- Other applications with low wall thickness requirements.



Trapezoidal split design avoiding part linkages

Optional cone shape at bushing end in case system specific requirement of easier assembly



Performance

Durability

Weight Reduction

Friction Reduction

Cost Reduction

Enabling Technologies

Green Technologies

