



**Five Decades of Sealing Experience
Creating Gaskets for your Future**



Valued & Sustainable Sealing



In the early 1990s, asbestos became a banned substance due to its direct link to harmful human health effects.

Since that time, **only a select few gasket producers worldwide have mastered the transition to 100% asbestos-free process** and continuously evolved the technical skills necessary to meet Original Equipment Manufacturer's (OEM) stringent and ever-changing requirements.

As the years pass, through consolidations, **fewer qualified material producers possess the necessary history and know-how in the sealing materials marketplace.**

At Omnia, we are proud to say we are one of the select few worldwide material producers remaining in the marketplace, mastering asbestos-free sealing materials exclusively, even before the ban was applied.

We have honed our expertise over many decades with significant investments in R&D, capital assets and both, retaining and attracting, genuine human talent, constantly strengthening our market reputation.

An alternative approach

Over the past three decades, the selection process for sealing materials has traditionally been imposed by a direct connection between gasket material producers and OEM's, who specify the name of each approved material.

Once approved, these materials and specifications are dictated to all gasket cutters.

At Omnia, our market approach remains somewhat different.

- We believe our customers (gasket cutters) have developed a deep understanding of the sealing market and deserve the right and ability to control their destiny.
- We value our customers' daily interaction with both OEMs and other customers.
- We offer Omnia's historical and advanced sealing material knowledge as a resource to our customers.

With over half a century of experience developing and manufacturing sealing materials, Omnia has

the required know-how and has successfully created and sold nearly sixty different types of sealing materials worldwide.

This success is a testimonial to the commitment we make in **collaborating with our customers in both the process of selecting or designing the most appropriate material for any given sealing application.**

Customer tailoring: developing your material together

Omnia has a proven global record of developing appropriate sealing materials tailored to meet customer application needs.

We believe our willingness and KH, matched with our customer's experience and capabilities, represent a win-win solution to create unique products and competitive sealing solutions for even the most demanding OEM applications.



International Standards: available tools for material selection.

At Omnia, we openly share the most appropriate material selection tools with our customers to guide them through the proper International Standards that identify and target specific performance criteria.

The benefit of our approach avoids using oversized materials by showing unnecessary performances usually hidden behind mysterious internal standards.

In addition to traditional standard technical requirements, such as **Compression/Recovery, Tensile, Fluids Absorptions, and Aging**, we believe the following recognized **International Standards (ASTM, DIN, GB/T 推荐)** are generally a better fit for characterizing most evolved materials. We also think they do a superior job of defining the final technical requirements of each end sealing application.

ASTM F38 **Test Method B - Standard Test Methods for Creep Relaxation of a Gasket Material**

Scope: This test method provides a means of measuring the amount of creep relaxation of a gasket material at a stated time after applying a compressive stress. Test performed for 22h at a continuous temperature of 105°C and 205°C.

ASTM F37 **Test Method B - Standard Test Method for Sealability of Gasket Materials**

This test method is suitable for evaluating the sealing characteristics at room temperature of gasket material under different compressive flange loads. This test method measure leakage rates as high as 6 L/h and as low as 0.3 mL/h.

Gb/t12385 – 2008 推荐

This test method is suitable for evaluating oil sealing performances of a gasket material under different increasing internal fluid pressures at a defined surface load.

ASTM F1574 **Standard Test Method for Compressive Strength of Gaskets at Elevated Temperatures**

The compressive strength or crush-extrusion resistance of gasket material is a significant factor in selecting a given material for use in a particular sealing application. The significance of the test method is based, in part, on the assumption that sealing material, once it has been crushed or extruded, could no longer effectively function as a seal.

DIN 52913

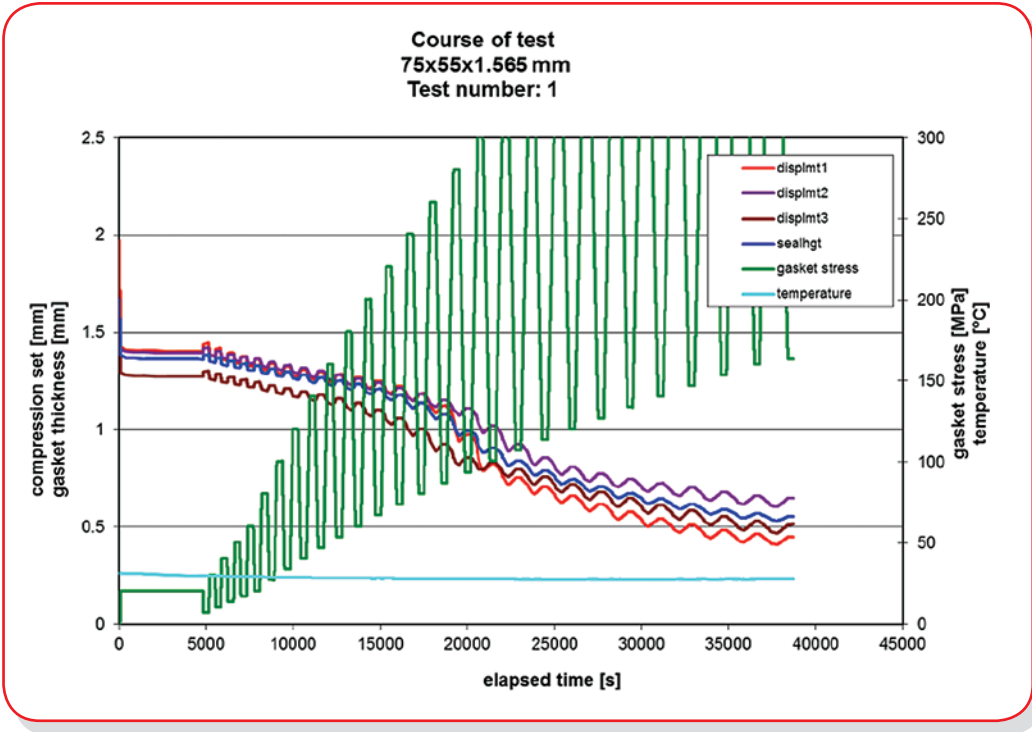
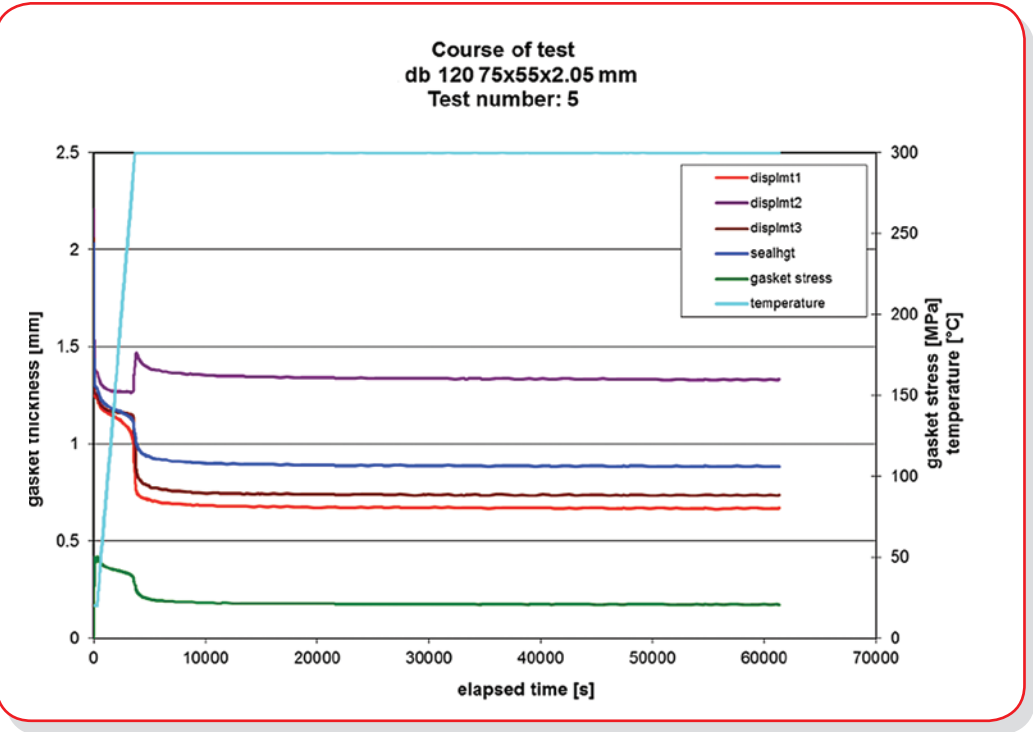
Hot Compression creep testing of gaskets indicates joint longevity. Temperature, compressive load, and duration rank

the ability of a material to maintain its thickness, which shows how well a flanged joint will maintain its tightness.

EN13555: 2021

The most recent version specifies gasket parameters (required by EN1591-1 testing), which are the most important properties of any given gasket material.

- Sub 8.8 – Qmin (L) – QSmin (L): test procedure consists of loading and unloading the material at increasing surface pressures, measuring leak rate with an internal pressure of 40 bar.
- Sub 8.5 – Qmax: This is a test procedure consisting of raising temperature and surface pressure to a required value, then carrying out cyclic compression/recovery loadings at progressively higher surface pressures until the gasket collapses.
- Annex H / Surface Friction: The coefficient of static friction μG is relevant to determine the ability of a gasket to counterbalance the acting shear forces and torsion moments.



Material Selection -Doing More with Less

We applied our experience in condensing offer in few products that comprehensively covers all fundamental sealing performances, recognized by International Standards, in order to allow customers to simplify their stock management system.

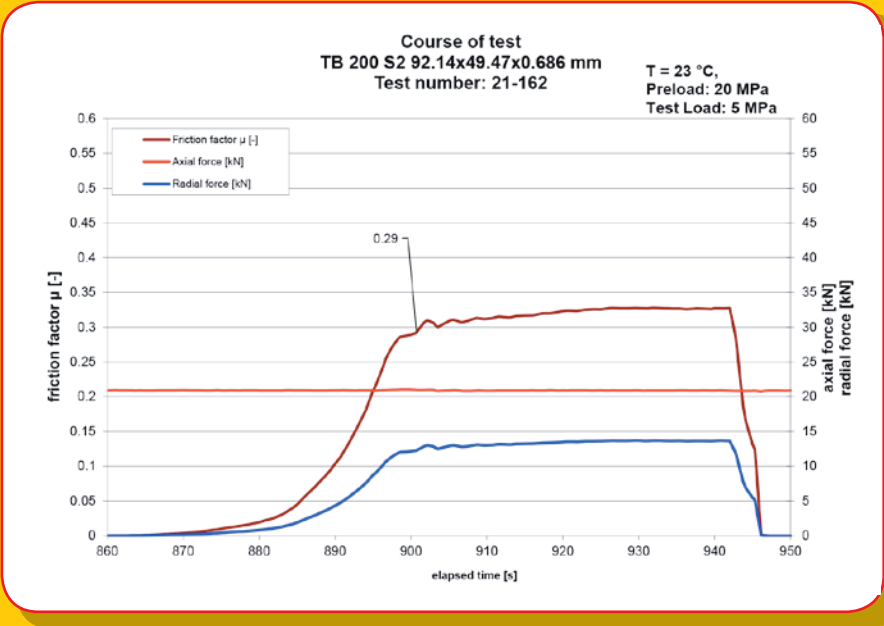
In Torbust Table below we synthetize our product offering, according to main worldwide standards and related performances:

TorBust			TB200	TB540	TB150	TB450	616	TB15	TN16
	Compressibility		●	●	●	●	●	●	●
	Recovery		●	●	●	●	●	●	●
	Tensile		●	●	●	●	●	●	●
Media Resistance	Water		●	●	●	●	●	●	●
	Fuel		●	●	●	●	●	●	●
	Oil		●	●	●	●	●	●	●
Sealability	ASTMF37		●	●	●	●	●	●	●
	Gb/t12385-2008 推荐		●	●	●	●	●	●	●
	EN13555 8.8		●	●	●	●	●	●	●
Hot Compression Creep Relaxation Compressive Strength	Creep ASTMF38	105°	●	●	●	●	●	●	●
		205°	●	●	●	●	●	●	●
	Crush ASTMF	150°	●	●	●	●	●	●	●
		150°	●	●	●	●	●	●	●
	DIN 52913 16h@ 50 Mpa	175°	●	●	●	●	●	●	●
		210°	●	●	●	●	●	●	●
		300°	●	●	●	●	●	●	●
	EN135555 8.5		175°	●	●	●	●	●	●
Coating (friction coefficient)	EN135555 Annex H	NO	●	●	●	●	●	●	●
		S2	●	●	●	●	●	●	●

- Poor
- Fair
- Good
- Very good
- Excellent

Coating

Increasing attention to anti-stick properties is finally finding an appropriate International Standard (EN13555) to determine gasket-flange Surface Friction Factor (μG). At Omnia, we assist our customers in the coating selection process under any given Surface Friction Factor.



Competitiveness

Our larger purpose has always been to create value for **our customers** by ensuring they only pay for materials required to meet specific end applications. As a result, our customers avoid purchasing potentially over-engineered materials. Our long-term customers have also appreciated Omnia’s demonstrated ability to help avoid the standard practice of just passing along higher costs in the form of the never-ending cycle of uncontrolled escalations in selling prices. Omnia is committed to proactively working with our customers to help achieve general price stability over the long term.

Sustainable Grades

Our first-generation Asbestos-free materials, with decades of success, still offers a valid option for more competitive Aftermarket needs

Sustainable		33G	33V	507	510	Torflex	413
	Density (gr/cm³)	0,65	0,75	0,7	1	1	1,3
	Compressibility	●	●	●	●	●	●
	Recovery	●	●	●	●	●	●
	Media Resistance	●	●	●	●	●	●
Compression Creep Relaxation	Water	●	●	●	●	●	●
	Fuel	●	●	●	●	●	●
	Oil	●	●	●	●	●	●
Sealability	Creep a 100°	●	●	●	●	●	●
	DIN 52913 16h@ 50Mpa 150°	●	●	●	●	●	●
	ASTMF38	●	●	●	●	●	●

- Poor
- Fair
- Good
- Very good
- Excellent

ESG (Environmentally Sustainable Company Governance)

Our certification to the ISO 14001 standard demonstrates our commitment and attention to environmental protection. Our Investments and know-how are constantly oriented in lowering Omnia’s environmental impact and improving our process solutions. Our products are in REACH compliance, and we are proud of our achievements in creating products with evolved sealing performance standards, all without facilitating any presence of SVCH substances.





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Sole Member Company Nominal value of the capital subscribed € 3.500.000,00 t.d.;
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