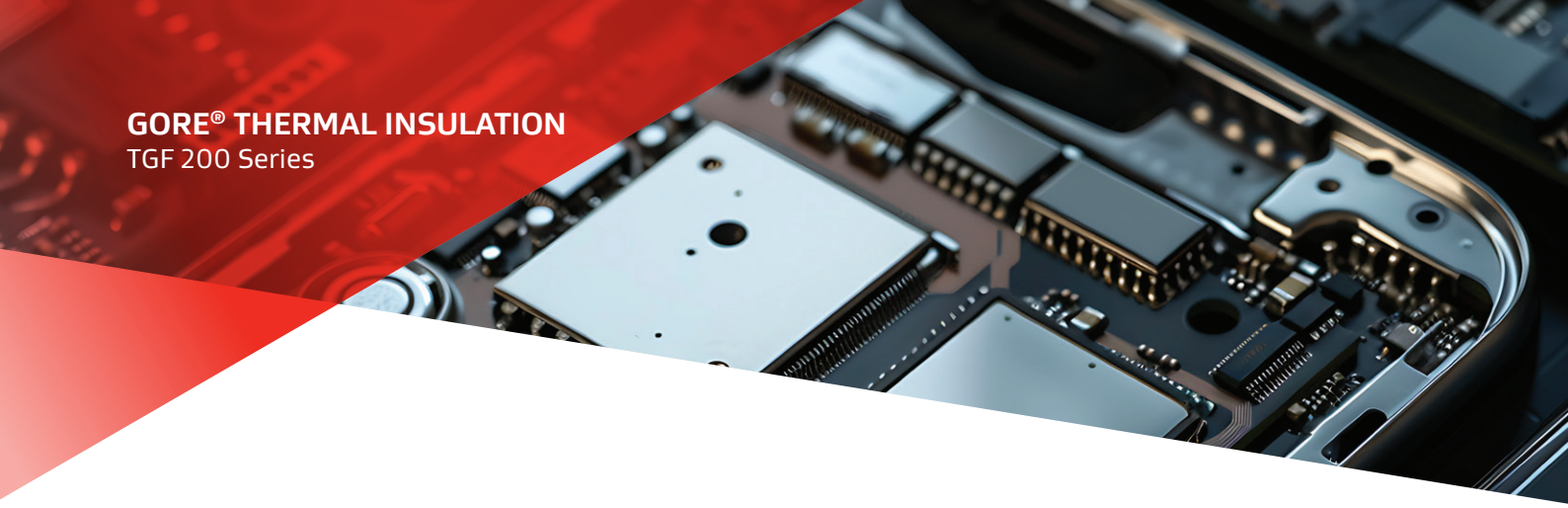
GORE® THERMAL INSULATION
TGF 200 Series



THE COOL CONFIDENCE BEHIND EVERY MOBILE DEVICE.

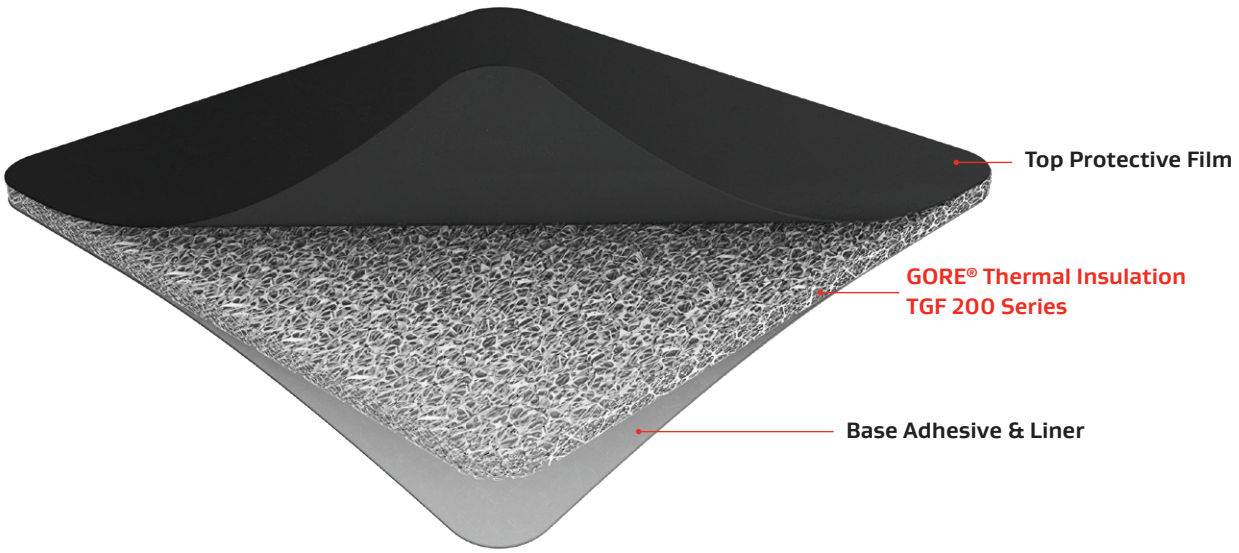
Mobile devices are smarter, faster, and more powerful than ever—but they also run hotter. Staying cool is no longer a luxury; it's the key to unlocking peak performance and ensuring user confidence.

GORE® Thermal Insulation – TGF 200 Series meets this challenge head-on by providing a high-performance, cost-effective thermal insulation solution that efficiently manages heat and enhances the user experience—all without compromise.

Superior Thermal Insulation, Designed for Demanding Applications

GORE® Thermal Insulation – TGF 200 Series is engineered to reduce heat transfer while maintaining a low surface temperature. This delays throttling and minimizes outward thermal flow to the exterior layer. Whether you're building the next flagship smartphone or an affordable mobile gaming device, this membrane is the ideal solution for efficient thermal management.

- **Advanced Thermal Insulation:** Unique thermal properties reduce heat conduction, ensuring consistent performance.
- **Versatile Applications:** Use it individually, as part of a complete thermal management system, or as a spacer to maintain component clearances.
- **Safe and Sustainable:** Made from non-PFAS materials, providing a safer, more eco-friendly solution.



Together, improving life

Product Information

Characteristics of Thermal Insulation Layer							
Part Number	TGF20023	TGF20038	TGF20055	TGF20065	TGF20110	TGF201335	TGF20250
Nominal Thickness(um)	23	30	55	65	110	135	250
Compression @ 6 psi	18.0%	12.0%	16%	7.4%	7.1%	10.7%	5%
Thermal Conductivity (W/mK) [1]	<0.02						0.03
Bulk Density (g/cm3)	0.16						
Specific heat capacity (J/g/K) [2]	1.7						
Dielectric Constant [3]	1.23						
Loss Tangent [3]	0.0001						
Operation Temperature	-40 °C to 100 °C						
RoHS [4]	Meets Threshold Requirements						

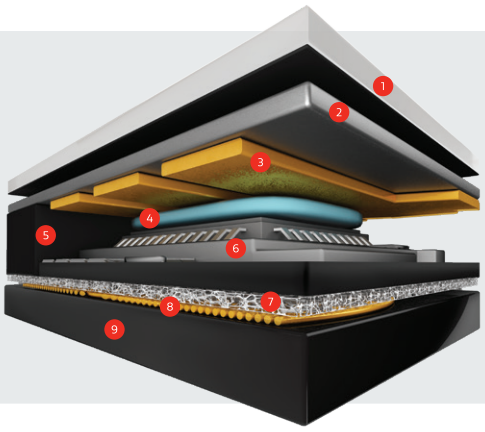
1) Nominal conductivity value tested on LFA and Gore Lab (modified ASTM C518), contact Gore Applications Engineer for original test report.
2) Nominal heat capacity measured according to ASTM E2716 Method B at 25 °C
3) Nominal values representative at 10 GHz
4) To the best of our knowledge, the prout listed above does not have any restricted substances above the maximun concentration values listed in RoHS Directive 2011/65/EU and meets the substance restrictions of Article 4 of RoHS Recast including Commission Delegated Directive 2015/863

All values based on nominal characteristics and do not represent the specification and tolerance.

What Makes GORE® Thermal Insulation – TGF 200 Series Unique?

Designed for cost-conscious manufacturers, our thermal insulation material improves mechanical stability and offers superior insulation between mobile components, boasting a thermal conductivity of **just 0.020 W/mK**. Its flat, bulge-free structure works as both a gap pad to maintain air gap layers and an individual insulator—ensuring reliable performance every time.

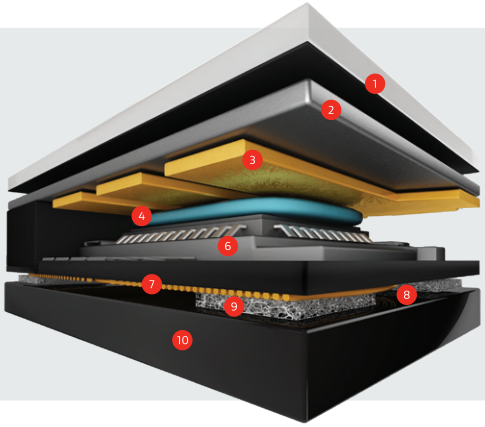
1. Screen
2. Aluminium Mid-Frame
3. Heat Pipe
4. TIM Material
5. Battery
6. Motherboard with CPU
7. **GORE® Thermal Insulation TGF 200 Series**
8. Mid-frame with Charging Coil
9. Back Cover



Applied as an individual insulator

Acts as a standalone insulator to minimize heat conduction to the surface, ensuring user comfort where additional thermal management is not feasible.

1. Screen
2. Aluminium Mid-Frame
3. Heat Pipe
4. TIM Material
5. Battery
6. Motherboard with CPU
7. Mid-frame with Charging Coil
8. Air Gap
9. **GORE® Thermal Insulation TGF 200 Series**
10. Back Cover



Applied as a gap pad to keep air gap layers

Maintains critical clearances between components, preventing hotspots and ensuring consistent thermal pathways for reliable performance.

Don’t let thermal limitations hinder your device’s potential. Let’s achieve sustainable success together.



Storage Recommendations

- Store unused insulation parts for a maximum of one year in the original packaging with the item/lot number attached.
- Keep all insulation parts out of direct sunlight.
- Store insulation parts in a clean, cool, dark environment at approximately 21°C (70°F) with 50 percent relative humidity (RH).

Ready to Keep Your Devices Cooler and Perform Better?

Choosing Gore means partnering with a global leader in materials science and thermal insulation technology. Our commitment to sustainability, innovation, service excellence, and quality ensures that your products are future proof.

- **Proven Supply Security:** Our global production facilities provide consistent quality and reliable supply chains.
- **Innovation Capabilities:** We offer customizable materials, ongoing development, and a focus on sustainability to reduce our carbon footprint.
- **Service & Operational Support:** We provide international certifications, regulatory compliance, a stable supply chain, and global technical support.

Don’t let thermal limitations hinder your device’s potential. Let’s achieve sustainable success together.

To explore options and solutions for your latest innovation, call your local Gore representative or send your inquiry from our website: gore.com/thermal

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