



HUBER | MARTINSWERK



Huber | Martinswerk has introduced a series of thermally conductive powders for modified polymeric systems. Martoxid[®] TM heat conductive alumina are easy-to-use and designed to improve the co-existence between filler and matrix in thermally sensitive environments. They allow the high loadings necessary to transfer heat away from the electronic part, and the resulting part has exceptional properties appropriate for thermal management of polymeric and resin compounds.

Introducing the...

Martoxid[®] TM-4000 Series

THERMALLY CONDUCTIVE, ELECTRICALLY INSULATIVE ADDITIVES, BASED ON ADVANCED ALUMINUM OXIDE TECHNOLOGY, ESPECIALLY DESIGNED FOR HEAT DISSIPATION SOLUTIONS FOR POLYAMIDES (E.G., PA-6, PA-6,6)

Applications:

- Aerospace
- Automotive
- LED
- E&E (e.g., Housing, Connectors, Switchgear, Overvoltage Protection)



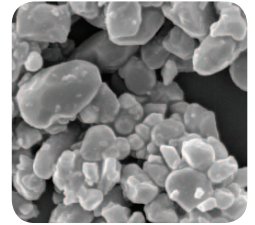
Available Martoxid[®] TM-4000 grades:

Martoxid[®] TM-4250 ▪ Martoxid[®] TM-4410 ▪ Martoxid[®] TM-4220



Key Performance Advantages:

- Orientation independent thermal conductivity; i.e., high through- and in-place values
- Low viscosity and good flowability, which are essential for efficient extrusion and injection molding; i.e.,
 - Higher throughput during extrusion
 - Lower pressure needed for injection molding
 - Outstanding energy efficiency
- Tailored particles' morphology and surface treatment which significantly impact the final compound's performance; i.e., superior mechanical properties; e.g., elongation at break and charpy impact strength



TECHNICAL EXAMPLE:

Martoxid® TM-4410 / PA-6

Loading (Wt. %)	Loading (Vol. %)	Thermal Conductivity (W/mK)	Elongation @ Break (%)	E-Modulus (MPa)	Tensile Strength (MPa)	Charpy Impact Strength (kJ/m ²)
50	22	1,0	5,2	6000	85	21*
70	40	2,0	4,0	9500	95	5**

* @ 15 J

** @ 7,5 J

Huber | Martinswerk Unsurpassed Customer Service and Care

Huber | Martinswerk has over a century of experience producing high-performing alumina-based specialties for use in a wide variety of applications including engineering plastic, rubber compounds and composites. We look forward to meeting your requirements for high-quality specialty products backed by superior technical service. If you require more specific information, please contact us:

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