

KeraTech



CATALOGUE



Our history

With 30 years' experience and the commitment to continuous improvement, Keratech consolidates its position in the production of refractory rollers.

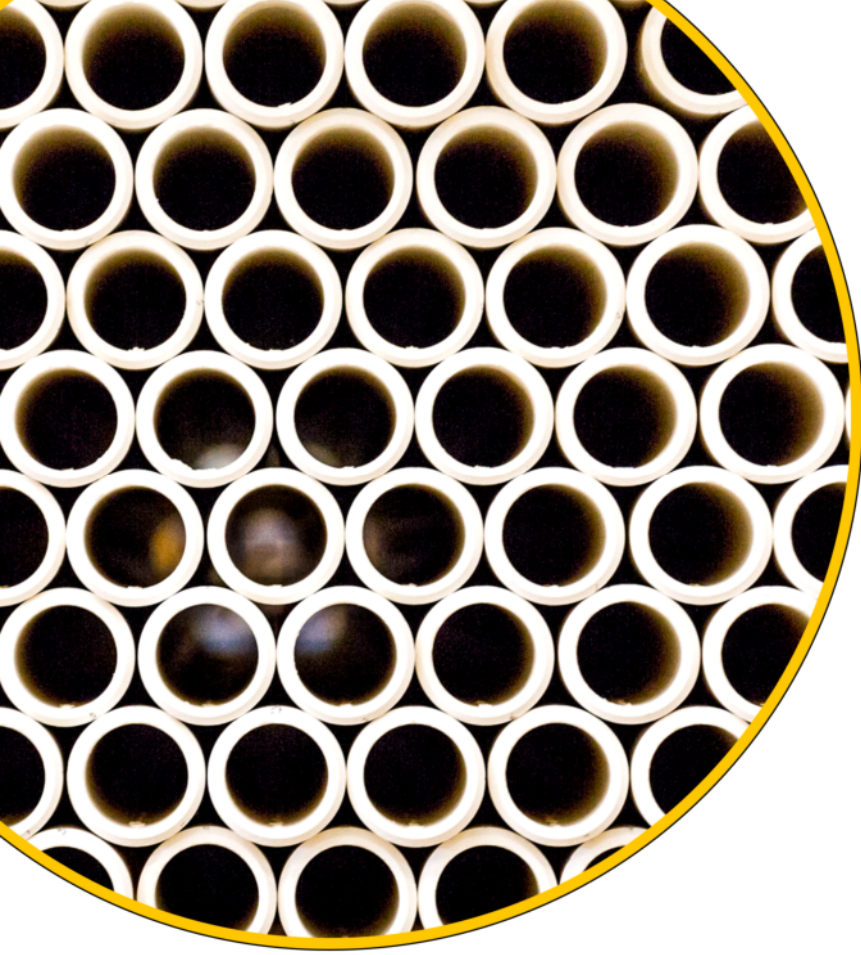
The enthusiasm of experts has forged a solid and trustworthy company. Constant technological innovation and the assimilation of know-how have enabled the company to grow and achieve a leading position on the market. The company provides a comprehensive range of products suitable for use in every zone of the kiln. In recent years, Keratech has created innovative ceramic rollers with working specifications that are hard to find elsewhere.

Keratech products are known for their exceptional resistance to bending and to chemical aggression, as well as for their versatility and stability. Special care is always taken to ensure compliance with the technical and dimensional specifications of the product.

Customers are consistently assured of top-quality standards, innovative and customized solutions, and comprehensive technical support in all phases of the supply chain.

Keratech has always focused on a quality-oriented industrial policy. The professional standards of its activity are guaranteed by the UNI EN ISO 9001 Quality Management System. The challenge set by sustainable development has further increased the company's commitment to environmental responsibility. Keratech views this as an important issue and has adopted solutions that, while utilizing advanced technology, are environment friendly throughout every stage of the production processes, in accordance with UNI EN ISO 14001 Environmental management systems.





Ceramic rollers

Versatility & stability

CERAMIC ROLLERS

Type	Type	Bulk density (Kg/dm ³)	Apparent porosity (%)	Absorbed water (%)	M.O.E. 20 °C (GPa)	Al ₂ O ₃ content (%)	Thermal expansion 20 - 400 °C 20 - 1000 °C (x10 ⁻⁶ K ⁻¹)
KM 250	Semi- Technical	2,6	21	10	> 85	77	4,9 6,05
KM 301	Technical	2,7	19	6,5	> 93	78	5 6,1
KM 306SH	Super- Technical	2,85	16	5,5	> 105	78	5 6,2
KM 25 – 20	Super- Technical	2,8	17	6	> 105	70	4,5 5,5
KM 610 SHD	Super- Technical	2,95	14	5	> 115	78	5,3 6,25
KM RL MU80	Technical	2,7	17	6	> 110	75	4,5 5,5
KM RR LTE	Special Products	2,4	17	7	> 55	25	2,3 3,15
VECTOR	Special Products	2,85	16	5,5	> 105	78	5 6,2
RIGATO	Special Products	2,8	17	6	> 105	70	4,5 5,5

Keramull KM 250

Semi-technical roller. Suitable for low-medium loads. It is the ideal product in order to manufacture single and double-fired tiles.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

Type

Semi-Technical

Al ₂ O ₃ content	77%
Bulk density	2.60 Kg/dm ³
Apparent porosity	21.0%
Absorbed water	10.0%
M.O.E. 20°C	> 85 GPa
Thermal expansion 20-400°C	4.9*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	6.05*10 ⁻⁶ K ⁻¹

Typical use

- Single firing
- Double firing
- Gres



Keramull KM 301 AR

Very versatile technical roller characterized by a good resistance to chemical aggression. Thanks to its chemical-physical characteristics it is recommended not only for the most subjected zone to chemical aggression but also for the firing zone for medium loads.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

Type

Technical

Al ₂ O ₃ content	78%
Bulk density	2.70 Kg/dm ³
Apparent porosity	19.0%
Absorbed water	6.5%
M.O.E. 20°C	> 93 GPa
Thermal expansion 20-400°C	5.0*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	6.1*10 ⁻⁶ K ⁻¹

Typical use

- Single firing
- Double firing
- Gres
- Suitable for high firing temperatures and medium loads



Keramull KM 306 SH

High modulus of elasticity, very low porosity and a practically absent vitreous phase. The roller is suitable both for the pre-firing and firing zone, for the production of large and heavy tiles. It guarantees a correct and uniform alignment of the material inside the kiln.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

Type

Super-Technical

Al ₂ O ₃ content	78%
Bulk density	2.85 Kg/dm ³
Apparent porosity	16.0%
Absorbed water	5.5%
M.O.E. 20°C	> 105 GPa
Thermal expansion 20-400°C	5.0*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	6.2*10 ⁻⁶ K ⁻¹

Typical use

- Single firing
- Grès
- Extruded tiles



Keramull KM 25-20

Roller characterized by exceptional operational stability and versatility: very low thermal expansion coefficient, high resistance to thermal shock and chemical attack. High elastic modulus constant at all temperatures. Fit for the production of tiles up to 20 mm thickness.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

Type

Super-Technical

Al ₂ O ₃ content	70%
Bulk density	2.80 Kg/dm ³
Apparent porosity	17.0%
Absorbed water	6.0%
M.O.E. 20°C	> 105 GPa
Thermal expansion 20-400°C	4.5*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	5.5*10 ⁻⁶ K ⁻¹

Typical use

- Pre-firing
- Firing
- "Semianello" (zone between the end of the firing zone and the beginning of the rapid cooling)



Keramull KM 610 SHD

Extremely high modulus of elasticity constant at all temperature. Excellent for use in the firing zone.
Fit for the production of very heavy tiles up to 30 mm thickness.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

Type

Super-Technical

Al ₂ O ₃ content	78%
Bulk density	2.95 Kg/dm ³
Apparent porosity	14.0%
Absorbed water	5.0%
M.O.E. 20°C	> 115 GPa
Thermal expansion 20-400°C	5.3*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	6.25*10 ⁻⁶ K ⁻¹

Typical use

- Single firing
- Grès
- Extruded tiles
- Tableware



Keramull KM RL-MU80

Roller for the slow and final cooling zone. It guarantees a very good alignment of the material. The roller can be used up to 1000°C.

Mineralogical composition

- Corundum
- Mullite

Type

Technical

Al ₂ O ₃ content	75%
Bulk density	2.70 Kg/dm ³
Apparent porosity	17.0%
Absorbed water	6.0%
M.O.E. 20°C	> 110 GPa
Thermal expansion 20-400°C	4.5*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	5.5*10 ⁻⁶ K ⁻¹

Typical use

- Cooling area (slow and final)
- Dryers



Keramull KM RR-LTE

Silicon-carbide based roller, to be used in the cooling zones of the kiln. It is characterized by a high resistance to oxidation and can be used up to 1000°C. It guarantees maximum stability in the event of thermal gradients thanks to its high thermal conductivity and low expansion coefficient.

Mineralogical composition

- Silicon carbide
- Cordierite

Type

Special Products

Al ₂ O ₃ content	25%
Bulk density	2.40 Kg/dm ³
Apparent porosity	17.0%
Absorbed water	7.0%
M.O.E. 20°C	> 55 GPa
Thermal expansion 20-400°C	2.3*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	3.15*10 ⁻⁶ K ⁻¹

Typical use

- Cooling zone
- Excellent stability in case of high thermal gradient



Vector

Through different peripheral speeds, this roller is capable to align the advancement of the tiles inside the kiln, before the material reaches the firing zone.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

Type

Special Products

Al ₂ O ₃ content	78%
Bulk density	2.85 Kg/dm ³
Apparent porosity	16.0%
Absorbed water	5.5%
M.O.E. 20°C	> 105 GPa
Thermal expansion 20-400°C	5.0*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	6.2*10 ⁻⁶ K ⁻¹

Typical use

- Pre-firing



Rigato

Roller recommended for the production of very large and thin tiles. Its unique geometry reduces the contact surface between the roller and the tile.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

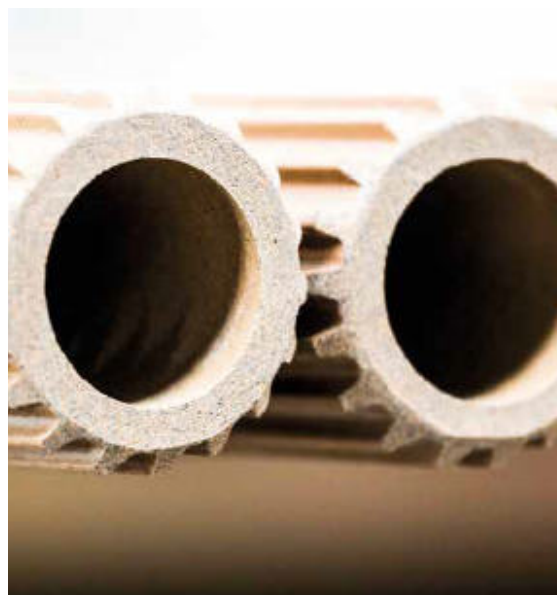
Type

Special Products

Al ₂ O ₃ content	70%
Bulk density	2.80 Kg/dm ³
Apparent porosity	17.0%
Absorbed water	6.0%
M.O.E. 20°C	> 105 GPa
Thermal expansion 20-400°C	4.5*10 ⁻⁶ K ⁻¹
Thermal expansion 20-1000°C	5.5*10 ⁻⁶ K ⁻¹

Typical use

- According to customer requirements



Upon request



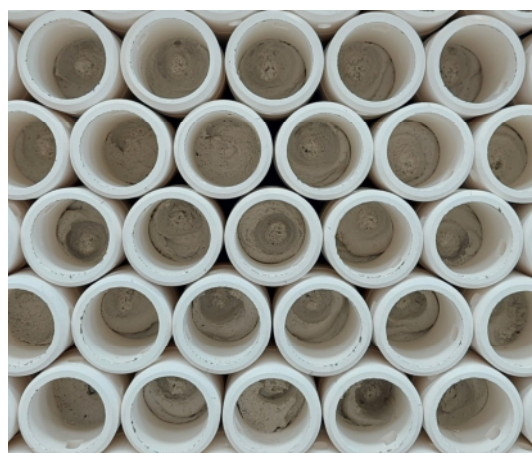
Plug



The refractory plug is made from a powder obtained by grinding the scraps of the rollers.

It is inserted on the drive side to protect the mechanical parts. It can also be inserted on the idle side, in which case it is equipped with a vent hole.

This accessory is supplied upon request.





Aluminous powders

Kerasand

Aluminous powder for refractory and abrasive use. Grain size 0 - 1 mm, 0 - 0,5 mm, 0 - 0,3 mm.
With further grinding and spray drying process the grain size is 0 - 50 µm.

Mineralogical composition

- Corundum
- Mullite
- Zirconia

Type

Special Products

Chemical analysis

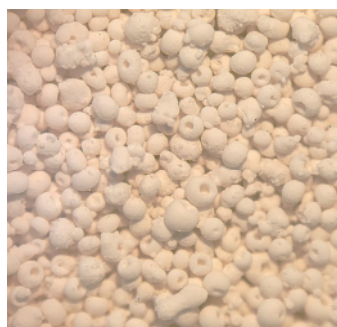
Al_2O_3	$\geq 75\%$
SiO_2	$\geq 17\%$
ZrO_2	$\geq 5\%$
Fe_2O_3	$\leq 0,25\%$

Diffraction analysis

Corundum	31%
Mullite	64%
Badelleyite	5%
Glassy phase	Traces



Aluminous powders



Spray-dried powders
(microscope)



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