

CREATIVITY IN Tableware

Kiln Furniture

Kiln furniture performance is a key factor in manufacturing high quality tableware and decoration ceramics. With firing processes becoming faster and setting systems being automated, the accuracy and shape stability of kiln furniture becomes increasingly critical.

IKF brings to its customers:

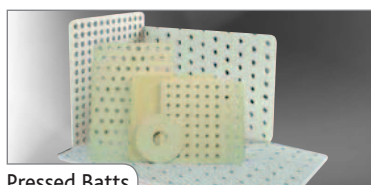
- A high productivity and consequent profitability of their firing lines through an optimized design, adapted to their product mix, allowing an optimum setting density in the kiln and automated handling.

- Quality products: precise and stable geometrical dimensions of kiln furniture are essential to produce high quality tableware pieces.

- A lower energy consumption thanks to much lighter kiln furniture.

- Reduced maintenance and operating costs thanks to long life-time kiln furniture (high thermal stability, thermal shock resistance and chemical inertness).

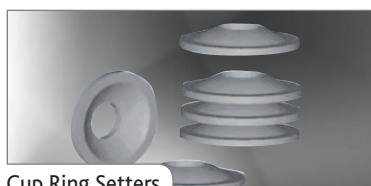
For each firing step (Biscuit, Glost and Decoration firing), we have developed a full range of solutions to match all kinds of tableware (Porcelain, Stoneware, Earthenware or Bone China). Each solution can be tailored to your needs thanks to our state of the art design office.



Pressed Batts



Pressed Profile Setters



Cup Ring Setters

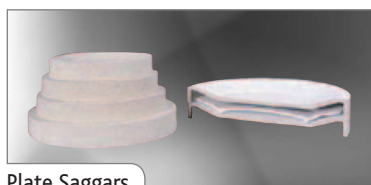


Plate Saggars



SiC Setters



Pressed T-Cranks

Our solutions

Biscuit Firing

Porcelain	850°C 950°C	Cordierite / Batts and Biscuit Setters
Stoneware	850°C 950°C	Cordierite or SiC / Batts and Biscuit Setters
Earthenware	1050°C 1150°C	Cordierite / Batts and Biscuit Setters
Bone China	1220°C 1250°C	Cordierite / Batts, Profile and Cup Ring Setters

Glost Firing

Porcelain	1300°C 1400°C	SiC Batts / SiC Setters / Cordierite Saggars
Stoneware	1150°C 1250°C	SiC Batts / Cordierite Saggars / Cordierite or SiC Setters
Earthenware	1000°C 1100°C	Cordierite / Batts, T-Cranks
Bone China	1060°C 1120°C	Cordierite / Batts, T-Cranks, Glaze Saggars

Depending on the kind of pigments and whether it is an in- or on-glaze decor, the temperature varies considerably. Imerys Kiln Furniture has developed very light cordierite support to handle your pieces during the decoration firing: the T-Cranks.

Decoration Firing

Porcelain	Pressed T-Cranks / Cast T-Cranks
Stoneware	Pressed T-Cranks / Cast T-Cranks
Earthenware	Pressed T-Cranks / Cast T-Cranks
Bone China	Pressed T-Cranks / Cast T-Cranks

Adequate compositions for Tableware

Cordierite is a major component of Cordierite-Mullite kiln furniture. It has an extremely low coefficient of thermal expansion explaining the outstanding thermal shock resistance of these kiln furniture materials. The controlled combination of Mullite, as a high temperature resistant mineral and Cordierite, enables tailoring of material characteristics for a wide variety of firing profiles and application temperatures.

Characteristics	Materials
<ul style="list-style-type: none"> • High thermal shock resistance • High creep resistance • High mechanical resistance • Typical products: Batts, Supports 	S-CORIT A APTAKORIT CM1 APTAKORIT CME S-CORIT B S-CORIT SR S-CORIT Q APTAKORIT MH CORMULL C1 CORMULL C1E APTAKORIT HT

Mullite in combination with Corundum, is widely used as kiln furniture in the ceramic industry. A wide variety of Mullite-Corundum kiln furniture materials is commercially available, applied for firing ceramics in temperatures ranging from 1,380°C up to 1,700°C. We combine acute raw material selection and precise processing to produce kiln furniture materials with highest performances for standard and special applications.

Characteristics	Materials
<ul style="list-style-type: none"> • Typical products: Supports, Caps 	APTAMULL 60 KF25P APTAMULL 70
<ul style="list-style-type: none"> • Typical products: Rollers 	E59 KF25E

Silicon carbide products are developed to meet customers' needs. The use of high purity raw materials and precise process parameters ensure a high quality and consistency of IKF materials: high strength, even at high temperatures, low thermal expansion, very high thermal conductivity, corrosion resistance under highest temperatures, very high hardness and resistance to wear.

Characteristics	Materials
<ul style="list-style-type: none"> • Recrystallized SiC The outstanding creep resistance at high temperatures allows heavy loads up to 1,750°C depending on atmosphere 	SC 100RG
<ul style="list-style-type: none"> • Nitride bonded SiC The outstanding creep resistance at high temperatures allows heavy loads up to 1,550°C. Aptasininit provides excellent oxidation resistance 	APTASINIT



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