Leveraging on its expertise in designing, composing, shaping and firing ceramics, Imerys Ceramics develops kiln furniture solutions for a wide range of technical ceramics manufacturings. These kiln furniture solutions are designed to fit the needs of several industries:

• car
• electrical/electronics
• medical
• wear parts

Our wide range of high quality body compositions (silicon carbide, cordierite, mullite, alumina and zirconia) is a solid cornerstone to the custom-building of the required kiln furniture properties.

Each solution is tailored to your needs thanks to our state-of-the-art design office.
Imerys Ceramics kiln furniture offers a large range of solutions for box-saggars:

- traditional with high performances
- combination of lib and ring – called “combo” – to increase flexibility and life time
- with specified “insert” to maintain pieces in right position during firing and keep the fired dimensions or avoid bending
- stackable setters with tailored ribs for product positioning

We have a wide range of standard dimensions of kiln furniture, and we produce all dimensions on request. We can also provide specific formulations as cordierite/spinel of kiln furniture depending on your needs. For all specific inquiries, we are used to work with Non Disclosure Agreements.

Imerys Ceramics kiln furniture offers a large range of solutions for batts and beams/props to build your own firing structure. We are extremely sensitive to provide you:

- low and very low thermal mass
- very precise and stable geometric dimensions
- long life-time
- high resistance to loading

Ask us for all any new specific need related to dimensions. Thanks to the most advanced shaping process, we will provide you a tailor-made solution. We are used to work with Non Disclosure Agreements.
## FULL EXPERTISE

### APPLICATIONS | MATERIALS | BUILDING | ELECTRICAL | AUTOMOTIVE
---|---|---|---|---
**Fixed parts** | Stoneware | Cordierite | Steatite | Alumina | Cordierite | Alumina | RSIC
**Typical parts** | Chimney tubes & pipes | Heating supports | Connectors, fuses, insulating components | Catalyst supports | Spark-plugs | Diesel particle filters
**Maximum temperature (°C)** | 1300 | 1350 | 1650 | 1450 | 1650 | 1450
### BATTS | Cornull C1E | Aptakorit CME | Aptakorit LS | Aptakorit CM1 | Aptakorit LS | Aptakorit CM1 | Apatkor 80 | Apatkor 85 | Apatkor 99 | SC 100 RG | Apatasinit
### BOX & RING-SAGGARS | SC 90S - Apatasinit | SC 100 RG | Apatasinit | SC 100RG | - | Apatasinit | Apatkor S | Apatasinit | Apatasinit | Apatkor S | Apatasinit | Apatasinit
### PUSHER BATTS | Apatkorit CM1 | Apatkorit LS | Apatkorit LS | SC 100 RG | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1
### BEAMS | SC 90S - Apatasinit | SC 100 RG | Apatasinit | SC 100RG | - | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit
### PROPS - LEGS - PINS - SPACERS | Cornull C1E - Apatakorit CME - Apatakorit CM1 | Apatkorit CM1 | Apatkorit CM1 | SC 100 RG | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1
### INSERTS | - | - | - | Apatasinit | Apatasinit

* : Mullite coated

### APPLICATIONS | CATALYST FILTRATION | GRINDING MEDIA | WEAR - CHEMICAL - BALLISTIC RESISTANCES | FOUDNRY | KILN CONSTRUCTION
---|---|---|---|---|---
**Fixed parts** | Alumina | Vitrified bounded abrasives | Zirconium oxide | Alumina | Zirconium oxide | Mullite | Clay-bonded SiC | Mullite
**Typical parts** | Catalyst carriers & membranes | Wheels | Balls | Seals, nozzles, pistons, armours,... | Molten metal filters | Tubes & Rollers
**Maximum temperature (°C)** | 1400 | 1300 | 1650 | 1650 | 1250 | 1450 | 1600
### BATTS | Apatasinit | SC 100 RG | Apatkor 99 | Apatkarb 70 | Apatkor 85 | Apatkor 85 | Cornull C1E | Apatkorit CM1 | Apatkorit CM1 | SC 100 RG | Apatasinit
### BOX & RING-SAGGARS | Apatasinit | SC 100 RG | Apatkarb 70 | Apatkor 85 | Apatasinit | Apatasinit | SC 100 RG | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit
### PUSHER BATTS | Apatkorit CM1 | Apatkorit CM1 | SC 100 RG | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit
### BEAMS | SC 90S - Apatasinit | SC 100 RG | Apatasinit | SC 100RG | - | Apatasinit | SC 100 RG
### PROPS - LEGS - PINS - SPACERS | Apatkorit CME | Apatkorit CM1 | SC 100 RG | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit | Apatasinit
### PIN-RODS | - | - | - | - | - | - | SC 100 RG

* : Alumina coated

### APPLICATIONS | POWDERS CALCINATION | ELECTRONICS
---|---|---
**Fixed parts** | Li-ion | Pigments | Electronics | Luminescence | Various oxides | Various materials | X - Zinc
**Typical parts** | - | - | - | - | - | - | MLCC | Piezo | Soft ferrites
**Maximum temperature (°C)** | 1200 | 1300 | 1400 | 1300 | 1400 | 1400 | 1450
### SETTERS | Apatkor 99 | G8 | F3 | F3XX | Apatkorit CM1 | Apatkorit LS | Apatkorit CME | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1
### BOX & RING-SAGGARS | Apatkorit CME | Apatkorit CM1 | Apatkorit LS | Apatkorit CME | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1 | Apatkorit CM1
### PUSHER BATTS | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80
### STRUCUTRE | - | - | - | - | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80 | Apatkor 80

Butterfly RSiC Mullite coated
### Multi Layers Ceramic Capacitors (MLCC) fired at 1280°C

**Problem**
Avoid bending of the current “spaghetti”-rack systems (mullite) with quite complicated manipulation.

**Solution**
Ultra-light RSiC-“Butterfly” rack system ($\text{Al}_2\text{O}_3$ engobed)
- assures stable flatness over service life with connector elements (Aptamull 84)
- allows easy handling of stackable system
- MLCC components placed onto $\text{Al}_2\text{O}_3$ or $\text{ZrO}_2$ setters

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### Diesel particle filters (DPF) honeycombs firing at 1450°C

**Problem**
Avoid DPF to lose geometric precision.

**Solution**
Combination of NSiC-batt with Aptamull 84 feet (LPIM):
- NSiC batts warrants flatness
- attached feet allows reduced costs

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### Spark-plugs fired at 1650°C

**Problem**
Avoid spark-plugs to bend or lose geometric precision during firing.

**Solution**
Use of mullite insert made with Aptamul 84 (LPIM):
- very precise hole dimensions to maintain vertical the spark-plugs during firing
- fitted insert dimensions for existing box-saggars
- perfect for automatic handling related to loading and unloading of the spark-plugs
### Our Solutions

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>Cormull C1E</th>
<th>Aptakorit CME</th>
<th>Aptakorit LS</th>
<th>Aptakorit CM1</th>
<th>SC 99S</th>
<th>SC 100 RG</th>
<th>G8</th>
<th>F3</th>
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<td>MATERIAL GROUP</td>
<td>Cordierite / Mullite</td>
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(1) : measured at 1250°C (1250°C/4h/10MPa)
(2) : measured at 1700°C (1700°C/10h/no load)
Teams dedicated to technical ceramics manufacturing
Thanks to a global commercial structure and integrated logistics network, Imerys Ceramics is able to provide a high quality, cost-effective and reliable service to its customers, wherever they are in the world.

Serving customers worldwide