



Since 1919

IFB Refractories Insulating Fire Bricks

Catalogue 2025



IFB Refractories bricks are 100% made in France, from local raw materials, with a special attention to the environment.

Website: www.ifbgroup.fr
Email: ifb-sales@ifbgroup.fr

IFB Refractories, your European manufacturer for Insulating Fire Bricks!

Founded in 1919, IFB Refractories is a century-old company specialising in the manufacture of insulating fire bricks and other special insulating refractory parts.

Located in Buzançais, in the heart of France, IFB serves the major European and overseas industrial markets.

The quality of IFB Refractories products is based on more than a century of know-how and experience. It enables us to export more than 85% of our production to the most demanding international markets.

Our raw materials are French and most often local. They are carefully selected and are subject to permanent quality controls. Our production is 100% made in France and contributes to the respect of the environment in the same way as our products are designed to reduce the carbon footprint of our customers.

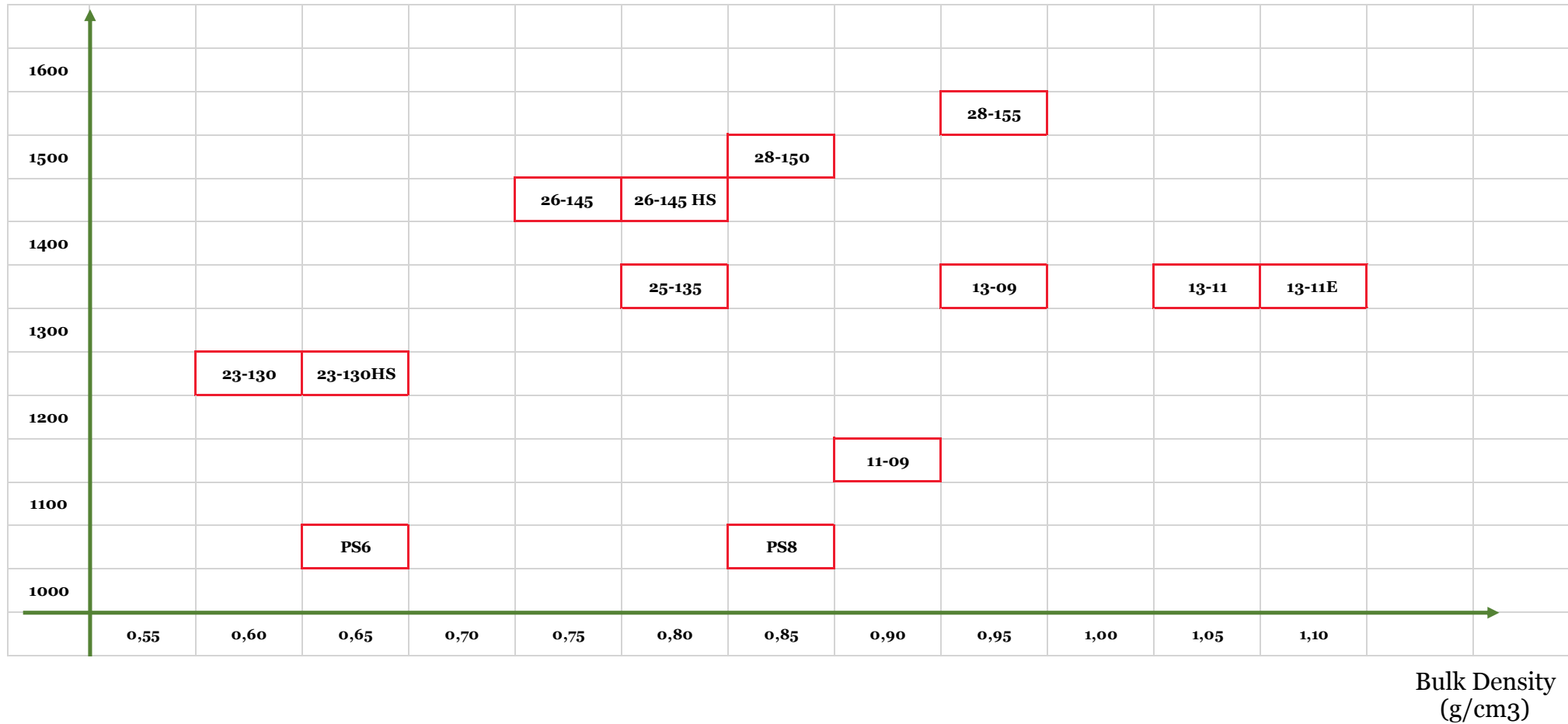
IFB bricks classification

| Quality | Classification | | Classification Temperature °C | Density ISO5016 g/cm3 | Cold Crushing Strength (CCS) ISO 8895 MPA | Al2O3 % XRF | FE2O3 % XRF | Thermal Conductivity ASTM C182 | | Jointing Mortar and Cements |
|-----------------------|----------------|----------|----------------------------------|-----------------------------|---|-------------------|-------------------|-----------------------------------|--------|-----------------------------|
| | ISO 2245 | ASTM 155 | | | | | | 200°C | 1000°C | |
| | PS6 | 105L | - | 1050 | 0.65 | 2 | 11 | 3.5 | 0.23 | |
| PS8 | 105 | - | 1050 | 0.85 | 4.5 | 10 | 3.2 | 0.22 | - | |
| 11-09 | 115 | - | 1150 | 0.92 | 4.2 | 22 | 2.0 | 0.24 | 0.32 | |
| 23-130 | 130L | 23 | 1260 | 0.58 | 1.3 | 39 | 1.3 | 0.15 | 0.25 | |
| 23-130 HS (ex 23-125) | 130L | 23 | 1260 | 0.67 | 2.0 | 39 | 1.1 | 0.21 | 0.31 | |
| 25-135 | 135 | 25 | 1350 | 0.80 | 2.5 | 39 | 1.3 | 0.25 | 0.34 | |
| 13-09 | 135 | - | 1350 | 0.93 | 4.5 | 35 | 1.4 | 0.23 | 0.40 | |
| 13-11 | 135 | - | 1350 | 1.06 | 9.0 | 38 | 1.4 | 0.33 | 0.44 | |
| 13-11E | 135 | - | 1350 | 1.10 | 10 | 38 | 1.3 | 0.34 | 0.46 | |
| 26-145 HS (ex 26-140) | 140 | 26 | 1430 | 0.87 | 4.7 | 43 | 1.2 | 0.29 | 0.36 | RL40 C1500 |
| 26-145 | 140L | 26 | 1450 | 0.78 | 2.8 | 45 | 1.2 | 0.30 | 0.38 | |
| 28-150 | 150L | 28 | 1510 | 0.87 | 3.5 | 61 | 0.8 | 0.32 | 0.38 | RL 75 C1650 |
| 28-155 | 150 | 28 | 1550 | 0.94 | 4.0 | 63 | 0.8 | 0.35 | 0.39 | |

IFB bricks classification

(Temperature by Bulk density)

Temperature (°C)



Bulk Density
(g/cm³)



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Agenda

The PS range

PS6

PS8

The 11 range

11-09

The 23 range

23-130

23-130 HS

The IFB 13 & 25 range

IFB 13-09

IFB 13-11

IFB 13-11-E

IFB 25-135

The 26 range

26-145 HS

26-145

26 HCA

The 28 range

28-150

28-155





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The PS range

The PS range is made of globular silica insulation bricks. It has been produced for more than half a century with clay from our own local quarry, hence the ochre colour. It is typically used for external layer applications.



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PS6 – Product data sheet

Presentation:

PS6 is a globular silica insulation brick. It has been produced for more than half a century with clay from our own local quarry. It is typically used for external layer applications. The brick exists in trimmed and machined versions.



Classification temperature: **1050°**.



Globular silica brick. Local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|------------------------------------|-------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 105 L | | |
| | ASTM C155 | | | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,65 | | 0,71 |
| Cold Crushing Strength (\perp to pressing direction) | ISO 8895 | Mpa | 2 | 1,5 | |
| Permanent Linear Change (12h at 1050°C) | ISO 2477 | % | -0,5 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 11 | 6 | |
| | SiO ₂ | | 82 | | |
| | Fe ₂ O ₃ | | 3,5 | | 4 |
| | TiO ₂ | | 0,4 | | |
| | CaO+MgO | | 2,1 | | |
| | Na ₂ O+K ₂ O | | 0,9 | | 1,4 |
| Thermal Conductivity : | ASTM C182 | W/m.K | | | |
| (through 114mm dimension) | 200°C | | 0,23 | | |
| | 400°C | | 0,25 | | |
| | 600°C | | 0,28 | | |
| | 800°C | | 0,30 | | |
| | 1000°C | | 0,33 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,5 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1490 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|--------------------------------|
| Length | ±2.5% | According to accepted drawings |
| Width | ±2.5% | |
| Thickness | ±3mm | |
| Squaring | 1mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

Please contact us directly for tighter tolerances.

Ref. 2025/01

Physical properties are based on averages of routine quality controls carried out on standard bricks. Averages and standard deviations are indicative values, limits (Tl and Th) are guaranteed values.

PS8 – Product data sheet

Presentation:

PS8 is a variation of the iconic PS6 brick offering a density at 0.85 g/cm^3 and a higher CCS at 4.5 MPa. It has been produced for more than half a century with clay from our own local quarry. It is typically used for external layer applications. The brick exists in trimmed and machined versions.



Classification temperature: **1050°**.



Globular silica brick. Local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|-----------|-------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 105 | | |
| | ASTM C155 | | | | |
| Bulk density | EN 1094-4 | g/cm3 | 0,85 | | 0,91 |
| Cold Crushing Strength (\perp to pressing direction) | ISO 8895 | Mpa | 4,5 | 3,2 | |
| Permanent Linear Change (12h at 1050°C) | ISO 2477 | % | -0,5 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| Al ₂ O ₃ | | | 10 | 7 | |
| SiO ₂ | | | 83,5 | | |
| Fe ₂ O ₃ | | | 3,2 | | 4 |
| TiO ₂ | | | 0,4 | | |
| CaO+MgO | | | 1,5 | | |
| Na ₂ O+K ₂ O | | | 1 | | 1,4 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| 200°C | | | 0,22 | | |
| 400°C | | | 0,24 | | |
| 600°C | | | 0,27 | | |
| 800°C | | | | | |
| 1000°C | | | | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,7 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1450 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|--------------------------------|
| Length | ±2.5% | According to accepted drawings |
| Width | ±2.5% | |
| Thickness | ±3mm | |
| Squaring | 1mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

Please contact us directly for tighter tolerances.

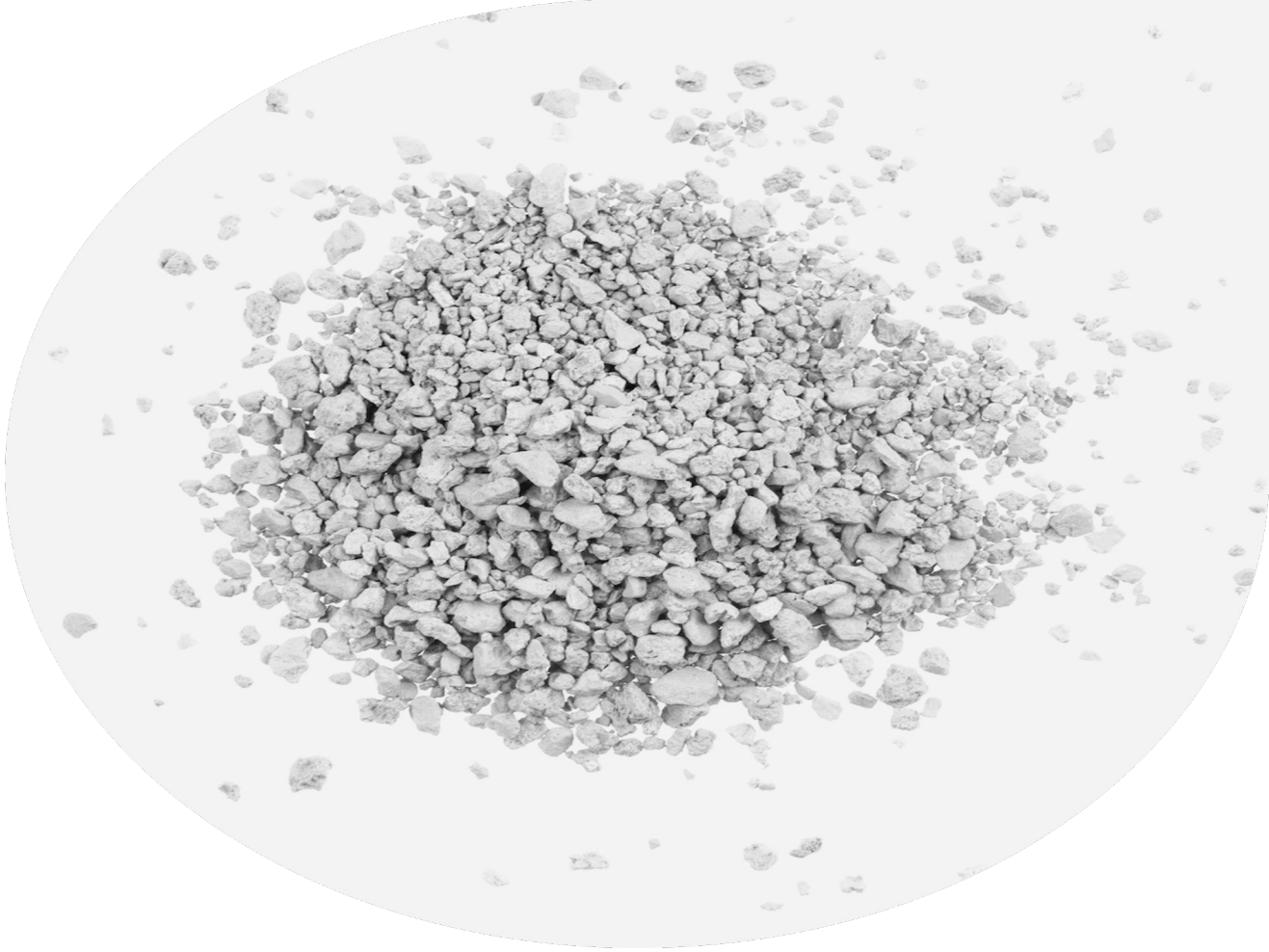
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The 11 range

The 11 range encompasses bricks designed for applications that require temperatures as high as 1150°C. These bricks offer a high degree of thermal insulation alongside excellent mechanical properties, making them particularly suitable for various applications. The 11 range is particularly popular in the phosphate industry.



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11-09 – Product data sheet

Presentation:

The 11-09 brick is designed for 1150°C temperature applications. It offers a high level of thermal insulation (0.32 W/m.K at 1000°C) with excellent mechanical properties (CCS >3 Mpa). Typical applications include the phosphate industry.



Classification temperature: **1150°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|-----------|-------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 115 | | |
| | ASTM C155 | | | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,92 | | 1,01 |
| Cold Crushing Strength (\perp to pressing direction) | ISO 8895 | Mpa | 4,2 | 3 | |
| Permanent Linear Change (12h at 1150°C) | ISO 2477 | % | -0,4 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| Al ₂ O ₃ | | | 22 | 18 | |
| SiO ₂ | | | 73 | | |
| Fe ₂ O ₃ | | | 2 | | 2,4 |
| TiO ₂ | | | 0,8 | | |
| CaO+MgO | | | 0,8 | | |
| Na ₂ O+K ₂ O | | | 1,2 | | 1,6 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| 200°C | | | 0,24 | | |
| 400°C | | | 0,27 | | |
| 600°C | | | 0,28 | | |
| 800°C | | | 0,30 | | |
| 1000°C | | | 0,32 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,7 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1550 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±2.5% |
| Width | ±2.5% | |
| Thickness | ±3mm | |
| Squaring | 1mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

Please contact us directly for tighter tolerances.

Ref. 2025/01

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The 23 range

The 23 range include some best in class insulating products. It provides a very low thermal conductivity over the whole temperature range. It is particularly well suited for intensive energy saving applications.



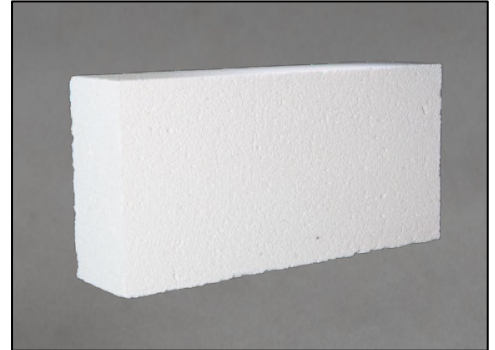
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23-130 – Product data sheet

Presentation :

The 23-130 brick is IFB 23 class best insulating product. It provides a very low thermal conductivity over the whole temperature range (0.25 W/m.K at 1000°C) and a cold crushing strength over 1 Mpa. It is particularly well suited for intensive energy saving applications.



Classification temperature: **1260°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|-------------|-------------------|---------------|----------|-----------|
| | | | | TL (low) | Th (high) |
| Classification | ISO 2245 | | 130L | | |
| | ASTM C155 | | 23 | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,58 | | 0,68 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | MPa | 1,3 | 1 | |
| Permanent Linear Change (12h at 1260°C) | ISO 2477 | % | -0,75 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| Al ₂ O ₃ | | | 39 | 36 | |
| SiO ₂ | | | 56 | | |
| Fe ₂ O ₃ | | | 1,3 | | 1,5 |
| TiO ₂ | | | 0,7 | | |
| CaO+MgO | | | 0,6 | | |
| Na ₂ O+K ₂ O | | | 1,8 | | 2,1 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| 200°C | | | 0,15 | | |
| 400°C | | | 0,17 | | |
| 600°C | | | 0,21 | | |
| 800°C | | | 0,23 | | |
| 1000°C | | | 0,25 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,45 | | |
| Refractoriness under load : (T _{0,5}) 0,05 MPa Load | EN ISO 1893 | °C | 1280 | 1150 | |
| Compression Creep 0,05 MPa load, 0-25h at 1050°C | EN 993-9 | V15-25 %/h | 0,002 | | |
| | | Z 25 % | 0,05 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1700 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|------------------|------------------|
| Recommended mortar | C : Heat set | RL : Air set |
| | S : Dry / Powder | H : Ready to Use |

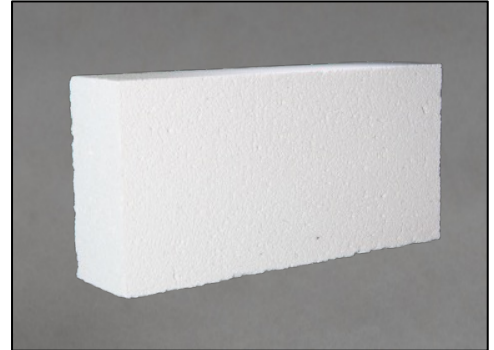
Ref. 2025/01

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23-130HS – Product data sheet

Presentation:

23-130HS (High Strength) is a variation of IFB best insulating brick 23-130 with higher mechanical properties. Its cold crushing strength is over 1.5 MPa while its thermal conductivity remains close to best in class standards. It is well suited for energy saving applications with mechanical requirements.



Classification temperature: **1260°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|------------------------------------|-------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 130L | | |
| | ASTM C155 | | 23 | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,67 | | 0,75 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | MPa | 2 | 1,5 | |
| Permanent Linear Change (12h at 1260°C) | ISO 2477 | % | -0,4 | -1 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| Al ₂ O ₃ | | | 39 | 35 | |
| | SiO ₂ | | 56 | | |
| | Fe ₂ O ₃ | | 1,1 | | 1,5 |
| | TiO ₂ | | 0,8 | | |
| | CaO+MgO | | 0,6 | | |
| | Na ₂ O+K ₂ O | | 1,9 | | 2,2 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| 200°C | | | 0,21 | | |
| 400°C | | | 0,23 | | |
| 600°C | | | 0,26 | | |
| 800°C | | | 0,28 | | |
| 1000°C | | | 0,31 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,45 | | |
| Refractoriness under load : (T _{0.5}) 0,05 MPa Load | EN ISO 1893 | °C | 1300 | 1100 | |
| Compression Creep V15-25 0,05 MPa load, 0-25h at 1050°C Z 25 | EN 993-9 | %/h | 0,001 | | |
| | | % | 0,03 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1700 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|------------------|------------------|
| Recommended mortar | C : Heat set | RL : Air set |
| | S : Dry / Powder | H : Ready to Use |

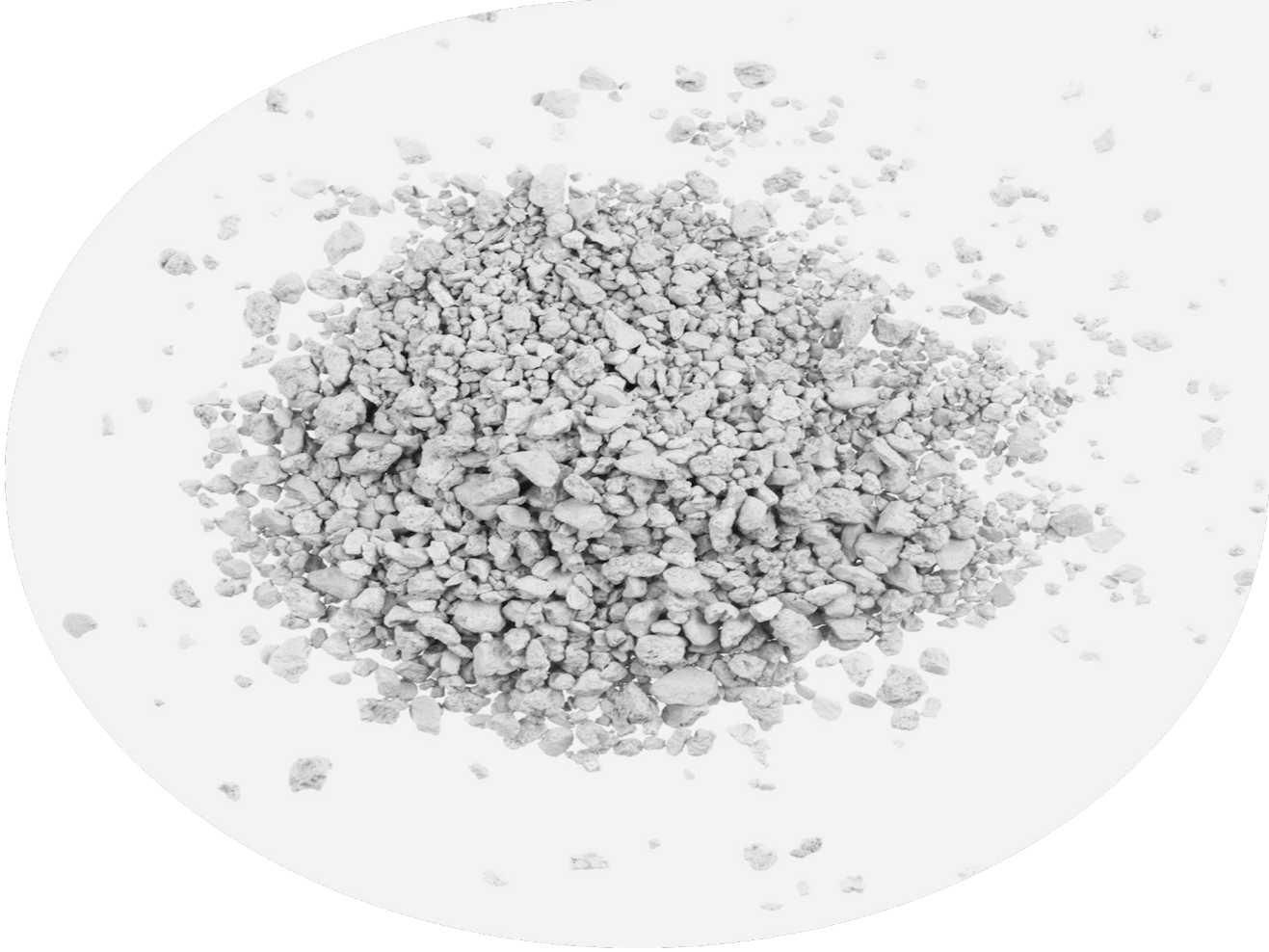
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The 13 & 25 range

The 13 & 25 ranges stand out as IFB Refractories' most renowned insulating bricks, owing to their exceptional mechanical characteristics. These products have evolved into the industry benchmark for demanding applications, notably in sectors like glass manufacturing.



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13-09 – Product data sheet

Presentation:

The 13-09 brick is a lighter version of IFB iconic 13-11 brick. It provides higher insulating properties (thermal conductivities at 0.40 W/m.K at 1000°C) where a medium high mechanical resistance is needed (CCS > 3.5 Mpa)



Classification temperature: **1350°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|--|------------------------------------|-------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 135 | | |
| | ASTM C155 | | | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,93 | | 1,02 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | Mpa | 4,5 | 3,5 | |
| Permanent Linear Change (12h at 1350°C) | ISO 2477 | % | -1 | -1,6 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 35 | 33 | |
| | SiO ₂ | | 59 | | |
| | Fe ₂ O ₃ | | 1,4 | | 1,6 |
| | TiO ₂ | | 1,3 | | |
| | CaO+MgO | | 0,7 | | |
| | Na ₂ O+K ₂ O | | 3,2 | | 3,7 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,23 | | |
| | 400°C | | 0,28 | | |
| | 600°C | | 0,31 | | |
| | 800°C | | 0,36 | | |
| | 1000°C | | 0,40 | | |
| | 1200°C | | | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,6 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

Ref. 2025/01

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13-11 – Product data sheet

Presentation:

One of IFB Refractories' iconic products, the 13-11 brick offers high mechanical properties with a cold crushing strength over 6.5 Mpa and a thermal conductivity at 0.44 W/m.K at 1000°C. It has become an industry standard for heavy operations like in the glass industry.



Classification temperature: **1350°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|--|------------------------------------|-------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 135 | | |
| | ASTM C155 | | | | |
| Bulk density | EN 1094-4 | g/cm ³ | 1,06 | | 1,18 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | Mpa | 9 | 6,5 | |
| Permanent Linear Change (12h at 1350°C) | ISO 2477 | % | -0,5 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 38 | 36 | |
| | SiO ₂ | | 57 | | |
| | Fe ₂ O ₃ | | 1,4 | | 1,6 |
| | TiO ₂ | | 1 | | |
| | CaO+MgO | | 0,5 | | |
| | Na ₂ O+K ₂ O | | 1,5 | | 1,9 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,33 | | |
| | 400°C | | 0,36 | | |
| | 600°C | | 0,39 | | |
| | 800°C | | 0,41 | | |
| | 1000°C | | 0,44 | | |
| | 1200°C | | 0,46 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,5 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

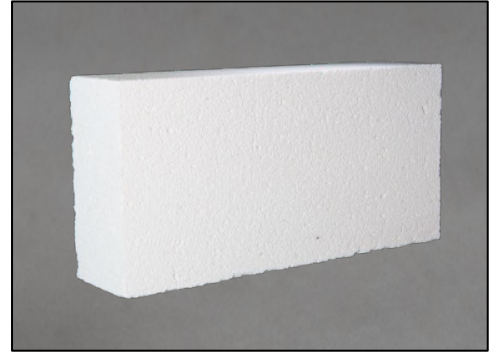
Ref. 2025/01

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13-11E – Product data sheet

Presentation :

A variation of our iconic product 13-11, the 13-11E brick is best in class in terms of mechanical properties with a cold crushing strength over 8 Mpa and a thermal conductivity of 0.46 W/m.K at 1000°C. It is particularly well suited for very heavy operations like for rotary kilns or in the aluminium industry for anode baking furnaces.



Classification temperature: **1350°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|--|------------------------------------|-------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 135 | | |
| | ASTM C155 | | | | |
| Bulk density | EN 1094-4 | g/cm ³ | 1,10 | | 1,25 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | Mpa | 10 | 8 | |
| Permanent Linear Change (12h at 1350°C) | ISO 2477 | % | -0,4 | -1 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 38 | 35 | |
| | SiO ₂ | | 57 | | |
| | Fe ₂ O ₃ | | 1,3 | | 1,6 |
| | TiO ₂ | | 0,9 | | |
| | CaO+MgO | | 0,6 | | |
| | Na ₂ O+K ₂ O | | 2 | | 2,3 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,32 | | |
| | 400°C | | 0,36 | | |
| | 600°C | | 0,40 | | |
| | 800°C | | 0,44 | | |
| | 1000°C | | 0,47 | | |
| | 1200°C | | 0,48 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,5 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|--------------------------------|
| Length | ±1mm | According to accepted drawings |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

Ref. 2025/01

Physical properties are based on averages of routine quality controls carried out on standard bricks. Averages and standard deviations are indicative values, limits (Tl and Th) are guaranteed values.



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Website: www.ifbgroup.fr
Email: ifb-sales@ifbgroup.fr

25-135 – Product data sheet

Presentation :

The lightest brick of the 13 & 25 range with a bulk density at 0.8 g/cm³ and a classification temperature at 1350°C. The brick offers excellent insulation properties (0.36 W/M.K). It is an ideal choice for applications where a compressive strength (CCS) exceeding 2 MPA is not required.



Classification temperature: **1350°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|------------------------------------|---------------------------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 135 | | |
| | ASTM C155 | | 25 | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,8 | | 0,92 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | MPa | 2,5 | 2 | |
| Permanent Linear Change (12h at 1350°C) | ISO 2477 | % | -0,9 | -1,3 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 39 | 37 | |
| | SiO ₂ | | 56 | | |
| | Fe ₂ O ₃ | | 1,3 | | 1,6 |
| | TiO ₂ | | 1 | | |
| | CaO+MgO | | 0,55 | | |
| | Na ₂ O+K ₂ O | | 1,6 | | 1,9 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,25 | | |
| | 400°C | | 0,28 | | |
| | 600°C | | 0,30 | | |
| | 800°C | | 0,32 | | |
| | 1000°C | | 0,34 | | |
| | 1200°C | | 0,38 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,5 | | |
| Refractoriness under load : (T _{0.5}) 0,05 MPa Load | EN ISO 1893 | °C | 1325 | | |
| Compression Creep 0,05 MPa load, 0-25h at 1150°C | EN 993-9 | V ₁₅₋₂₅ Z ₂₅ | %/h | 0,005 | |
| | | | % | 0,25 | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1400 S or H | RL 13 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

Ref. 2025/01

Physical properties are based on averages of routine quality controls carried out on standard bricks. Averages and standard deviations are indicative values, limits (Tl and Th) are guaranteed values.



Since 1919

The 26 range

IFB 26 range is designed for 1400°C temperature applications. It offers a solid level of insulation and a high level of mechanical resistance. It is compatible with most kind of industrial applications.



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Email: ifb-sales@ifbgroup.fr

26-145 HS – Product data sheet

Presentation:

IFB 26-145 HS (High Strength) is a standard insulating brick for 1430°C temperature applications. It offers a good level of insulation (0.36 W/m.K at 1000°C) and a high level of mechanical resistance (CCS >3MPa).



Classification temperature: **1430°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|------------------------------------|-------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 140 | | |
| | ASTM C155 | | 26 | | |
| Bulk density | EN 1094-4 | g/cm3 | 0,87 | | 1 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | Mpa | 4,7 | 3 | |
| Permanent Linear Change (12h at 1400°C) | ISO 2477 | % | -0,6 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 43 | 39 | |
| | SiO ₂ | | 52 | | |
| | Fe ₂ O ₃ | | 1,2 | | 1,5 |
| | TiO ₂ | | 1 | | |
| | CaO+MgO | | 0,5 | | |
| | Na ₂ O+K ₂ O | | 1,37 | | 1,5 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,29 | | |
| | 400°C | | 0,31 | | |
| | 600°C | | 0,32 | | |
| | 800°C | | 0,34 | | |
| | 1000°C | | 0,36 | | |
| | 1200°C | | 0,38 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,45 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|--------------------------------|
| Length | ±1mm | According to accepted drawings |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| | | |
|---------------------|------------------|------------------|
| Other Information : | C 1500 S or H | RL 40 S or H |
| Recommended mortar | C : Heat set | RL : Air set |
| | S : Dry / Powder | H : Ready to Use |

Ref. 2025/01

Physical properties are based on averages of routine quality controls carried out on standard bricks. Averages and standard deviations are indicative values, limits (Tl and Th) are guaranteed values.



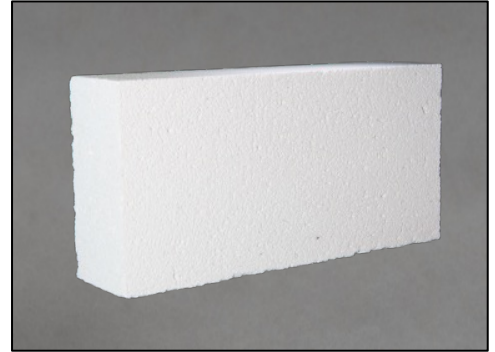
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26-145 – Product data sheet

Presentation:

The 26-145 brick is IFB classical insulating brick for 1450°C temperature applications. It offers a good level of insulation (0.38 W/m.K at 1000°C) and a cold crushing strength > 2 Mpa. It is compatible with most kind of industrial applications.



Classification temperature: **1450°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|------------------------------------|---------------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 140L | | |
| | ASTM C155 | | 26 | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,78 | | 0,9 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | MPa | 2,8 | 2 | |
| Permanent Linear Change (12h at 1450°C) | ISO 2477 | % | -0,6 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 45 | 42 | |
| | SiO ₂ | | 50 | | |
| | Fe ₂ O ₃ | | 1,2 | | 1,5 |
| | TiO ₂ | | 0,8 | | |
| | CaO+MgO | | 0,5 | | |
| | Na ₂ O+K ₂ O | | 1,4 | | 1,9 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,30 | | |
| | 400°C | | 0,32 | | |
| | 600°C | | 0,34 | | |
| | 800°C | | 0,36 | | |
| | 1000°C | | 0,38 | | |
| | 1200°C | | 0,40 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,46 | | |
| Refractoriness under load : (T _{0,5}) 0,05 MPa Load | EN ISO 1893 | °C | 1340 | | |
| Compression Creep 0,05 MPa load, 0-25h at 1200°C | EN 993-9 | V ₁₅₋₂₅ %/h | 0,006 | | |
| | | Z ₂₅ % | 0,25 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|--|--|
| | Length Width Thickness Squaring | ±1mm ±1mm ±1mm 0,75mm / 100mm |

| Other Information : | C 1500 S or H C : Heat set S : Dry / Powder | RL 40 S or H RL : Air set H : Ready to Use |
|---------------------|---|--|
| Recommended mortar | | |

Ref. 2025/01

Physical properties are based on averages of routine quality controls carried out on standard bricks. Averages and standard deviations are indicative values, limits (Tl and Th) are guaranteed values.



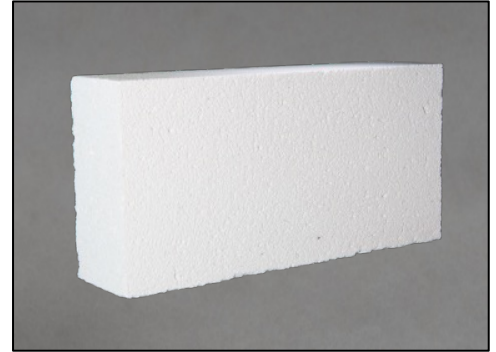
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26-HCA – Product data sheet

Presentation:

The 26-HCA is an evolution of the 26-140 brick with a Higher Alumina Content (>57%) and lower iron oxide (<1.1%). It provides similar insulation (0.38 W/m.K at 1000°C) and mechanical (CCS>2,7 MPa) properties.



Classification temperature: **1450°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|--------------------------------|---------------------------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 140L | | |
| | ASTM C155 | | 26 | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,85 | | 0,97 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | MPa | 4 | 2,7 | |
| Permanent Linear Change (12h at 1450°C) | ISO 2477 | % | -0,6 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 61 | 57 | |
| | SiO ₂ | | 35 | | |
| | Fe ₂ O ₃ | | 0,8 | | 1,1 |
| | TiO ₂ | | 0,7 | | |
| | CaO+MgO | | 0,3 | | |
| | | | 1,5 | | 1,8 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,26 | | |
| | 400°C | | 0,28 | | |
| | 600°C | | 0,33 | | |
| | 800°C | | 0,35 | | |
| | 1000°C | | 0,38 | | |
| | | | 0,40 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,47 | | |
| Refractoriness under load : (T _{0,5}) 0,05 MPa Load | EN ISO 1893 | °C | 1450 | | |
| Compression Creep 0,05 MPa load, 0-25h at 1300°C | EN 993-9 | V ₁₅₋₂₅ Z ₂₅ | %/h | 0,015 | |
| | | | % | 0,45 | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1500 S or H | RL 40 S or H |
|---------------------|------------------|------------------|
| Recommended mortar | C : Heat set | RL : Air set |
| | S : Dry / Powder | H : Ready to Use |

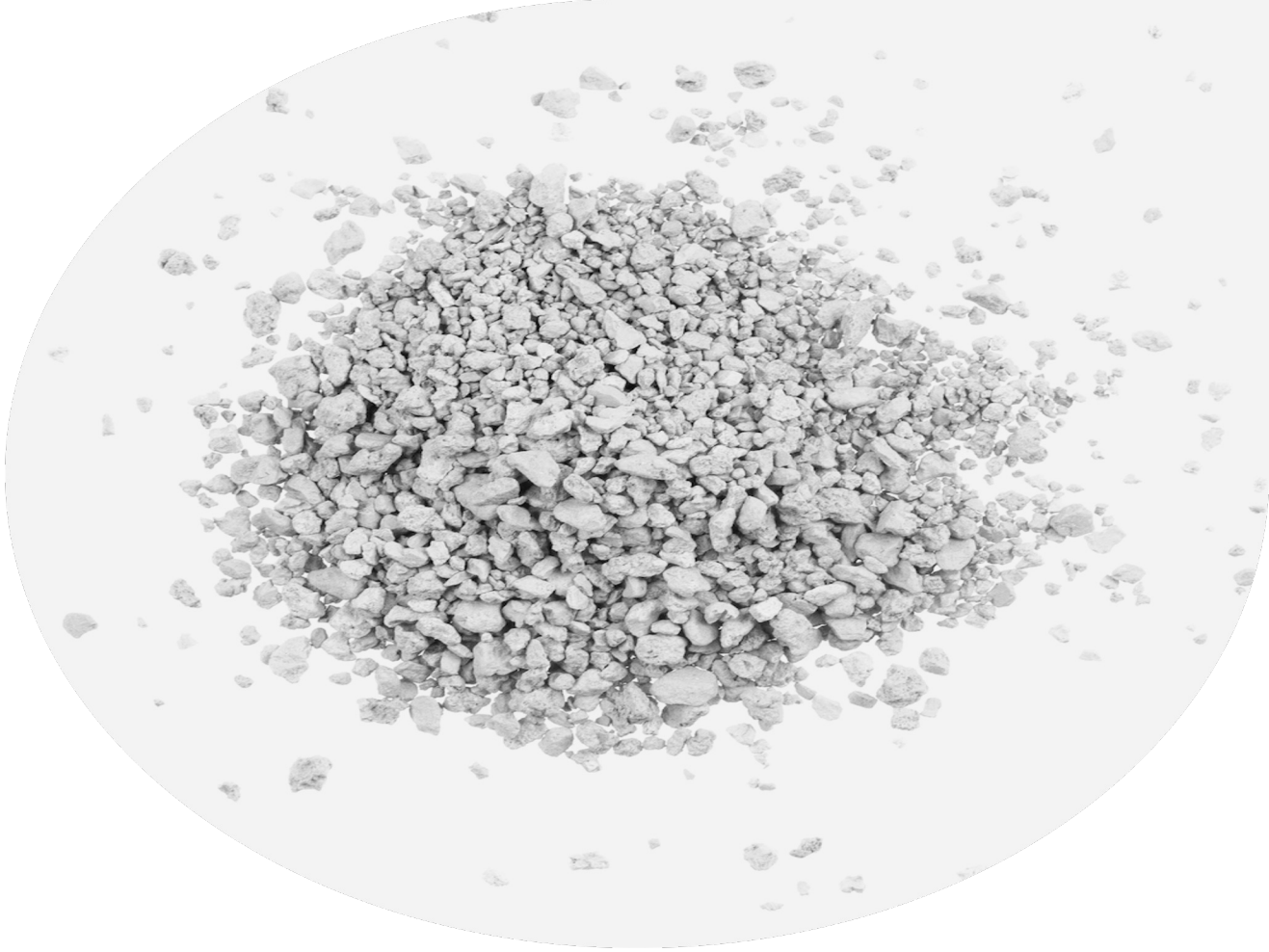
Ref. 2025/01

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Since 1919

The 28 range

The 28 range represents IFB's classical insulating brick series designed for applications at temperatures up to 1500°C. Featuring a high alumina content and low iron oxide, it provides exceptional insulation and strong mechanical properties.



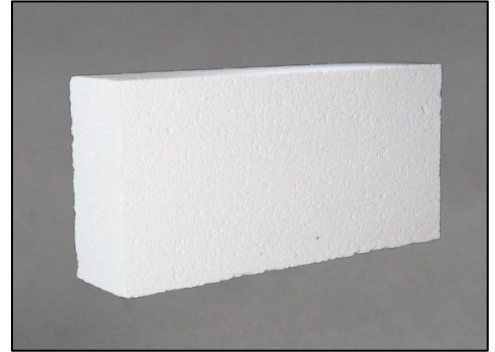
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28-150 – Product data sheet

Presentation:

The 28-150 is IFB classical insulating brick for 1500°C temperature applications. With high alumina content (>58%) and low iron oxide (<1.05%) it offers high insulation (0.39 W/m.K at 1200°C) and good mechanical properties (CCS >2.2 MPA).



Classification temperature: **1510°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|------------------------------------|---------------------------|---------------|----------|-----------|
| | | | | Tl (low) | Th (high) |
| Classification | ISO 2245 | | 150L | | |
| | ASTM C155 | | 28 | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,87 | | 0,96 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | MPa | 3,5 | 2,2 | |
| Permanent Linear Change (12h at 1510°C) | ISO 2477 | % | -0,7 | -1 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| | Al ₂ O ₃ | | 61 | 58 | |
| | SiO ₂ | | 35 | | |
| | Fe ₂ O ₃ | | 0,8 | | 1,05 |
| | TiO ₂ | | 0,3 | | |
| | CaO+MgO | | 0,4 | | |
| | Na ₂ O+K ₂ O | | 1,5 | | 1,7 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| | 200°C | | 0,32 | | |
| | 400°C | | 0,33 | | |
| | 600°C | | 0,35 | | |
| | 800°C | | 0,37 | | |
| | 1000°C | | 0,38 | | |
| | 1200°C | | 0,39 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,5 | | |
| Refractoriness under load : (T _{0,5}) 0,05 MPa Load | EN ISO 1893 | °C | 1450 | | |
| Compression Creep 0,05 MPa load, 0-25h at 1300°C | EN 993-9 | V ₁₅₋₂₅ %/h | 0,015 | | |
| | | Z ₂₅ % | 0,45 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1730 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1500 S or H | RL 75 S or H |
|---------------------|------------------|------------------|
| Recommended mortar | C : Heat set | RL : Air set |
| | S : Dry / Powder | H : Ready to Use |

Ref. 2025/01

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28-155 – Product data sheet

Presentation:

The 28-155 is IFB classical insulating brick for **1550°C** temperature applications. With high alumina content (>60%) and low iron oxide (<1.05%) it offers high insulation (0.40 W/m.K at 1200°C) and excellent mechanical properties (CCS >3 MPA).



Classification temperature: **1550°**.



French refractory clays & local organic filler.

| Properties : | Standards | Units | Average μ | Limits | |
|---|-------------|-----------------------------|---------------|----------|-----------|
| | | | | TI (low) | Th (high) |
| Classification | ISO 2245 | | 150 | | |
| | ASTM C155 | | 28 | | |
| Bulk density | EN 1094-4 | g/cm ³ | 0,94 | | 1,05 |
| Cold Crushing Strength (// to extrusion) | ISO 8895 | MPa | 4 | 3 | |
| Permanent Linear Change (12h at 1550°C) | ISO 2477 | % | -1 | -1,5 | |
| Chemical Analysis : (XRF) | ISO 12677 | % | | | |
| Al ₂ O ₃ | | | 63 | 60 | |
| SiO ₂ | | | 34 | | |
| Fe ₂ O ₃ | | | 0,8 | | 1,05 |
| TiO ₂ | | | 0,3 | | |
| CaO+MgO | | | 0,3 | | |
| Na ₂ O+K ₂ O | | | 1,2 | | 1,5 |
| Thermal Conductivity : (through 114mm dimension) | ASTM C182 | W/m.K | | | |
| 200°C | | | 0,35 | | |
| 400°C | | | 0,36 | | |
| 600°C | | | 0,37 | | |
| 800°C | | | 0,38 | | |
| 1000°C | | | 0,39 | | |
| 1200°C | | | 0,40 | | |
| Reversible Thermal Expansion : (20°C to 1000°C) | ISO 16835 | % | 0,51 | | |
| Refractoriness under load : (T _{0,5}) 0,05 MPa Load | EN ISO 1893 | °C | 1490 | | |
| Compression Creep 0,05 MPa load, 0-25h at 1300°C | EN 993-9 | V ₁₅₋₂₅ % / h | 0,006 | | |
| | | Z ₂₅ % | 0,18 | | |
| Pyroscopic Cone Equivalent : | ISO 528 | °C | 1750 | | |

| Dimensional tolerances: | Standard Pieces | Non-Standard Pieces |
|-------------------------|-----------------|---------------------|
| | Length | ±1mm |
| Width | ±1mm | |
| Thickness | ±1mm | |
| Squaring | 0,75mm / 100mm | |

| Other Information : | C 1650 S or H | RL 75 S or H |
|---------------------|----------------------------------|----------------------------------|
| Recommended mortar | C : Heat set S : Dry / Powder | RL : Air set H : Ready to Use |

Ref. 2025/01

Physical properties are based on averages of routine quality controls carried out on standard bricks. Averages and standard deviations are indicative values, limits (TI and Th) are guaranteed values.



Thank You

Contact: ifb-sales@ifbgroup.fr

Tel: + 33 (0)2 54 02 25 17

Rte de Vendoeuvres, 36500 Buzançais, France



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