

# MICROTHERM® FBK



### Feeder Bowl Kits

MICROTHERM® FBK are tailor made kits of microporous insulation for glass feeder bowls. The kits consist of different MICROTHERM® materials, specially chosen to allow fast assembly on-site. The dimensions are based entirely on customer specifications. The formulation is an opacified blend of filament reinforced pyrogenic silica.

MICROTHERM® FBK is the reference in glass feeder bowl insulation and ensures optimised thermal performance during discharge from the forehearth, guaranteeing the best possible overall quality.

### Technical data

MICROTHERM® FBK contains the materials MICROTHERM® SLATTED and MICROTHERM® PANEL. The performance is thereby a combination of these products. Values below are indicative and based on MICROTHERM® SLATTED.

Finishing		Glass cloth (E-glass)
<b>Classification temperature</b>	°C	1000
<b>Nominal density</b>	kg/m <sup>3</sup>	240
<b>Compressive strength (ASTM C165)</b>	MPa = N/mm <sup>2</sup>	0.15
<b>Thermal conductivity (ISO 8302, ASTM C177)</b>		
200 °C	W/m K	0.025
400 °C	W/m K	0.029
600 °C	W/m K	0.035
800 °C	W/m K	0.044
<b>Specific heat capacity</b>		
200 °C	kJ/kg K	0.92
400 °C	kJ/kg K	1.00
600 °C	kJ/kg K	1.04
800 °C	kJ/kg K	1.08
<b>Shrinkage</b>		
1-sided 12h - 1000 °C	%	< 0.5
Full-soak 24h - 1000 °C	%	< 3

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### Properties & advantages

- Custom-made to specification
- Ensures uniformity of glass gob size and weight
- Extremely low thermal conductivity
- High thermal stability
- Non-combustible
- No harmful respirable fibres
- Environmentally friendly, free of organic binders
- Resistant to most chemicals

### Application areas

Microporous insulation offers an extremely low thermal conductivity, close to the lowest theoretically possible at high temperatures. Microporous materials are the preferred choice when a large temperature reduction is required within a limited space, or when strict heat loss or surface temperature requirements are specified.

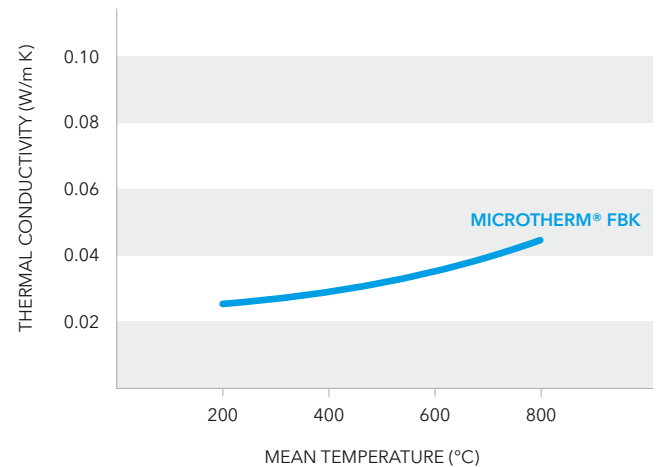
### HEAVY INDUSTRY - GLASS MANUFACTURING

- All types of glass feeder bowls

### Working & processing

MICROTHERM® FBK is 100% custom made. If some cutting would be required, the kit can be shaped easily with a simple cutter (the procedure can be found on our website). The kit can be fixed in place with glue or by mechanical means such as anchors, pins and clips.

### Thermal conductivity



### Delivery sizes

Microtherm manufactures more than 40 different feeder bowl insulation kits for companies such as Emhart Glass, British Hartford, Owens-Illinois Inc., and so on. A number of the more popular MICROTHERM® FBK are held in stock for rapid dispatch. Special kits are available on request.

FBK 01 Emhart 81 3773 STD SINGLE	FBK 41 Emhart 194 5011 DEEP DOUBLE	FBK 74 Emhart BHF 907 9" DOUBLE
FBK 02 Emhart 81 3773 STD DOUBLE	FBK 42 Emhart 194 5104 STD SINGLE	FBK 75 Emhart BHF 907 10" DOUBLE
FBK 03 Emhart 81 3524 DEEP SINGLE	FBK 43 Emhart 194 5104 STD DOUBLE	FBK 76 Emhart BHF DIDIER WIEN SINGLE
FBK 04 Emhart 81 3524 DEEP DOUBLE	FBK 50 Emhart 503 5081 STD SINGLE	FBK 30 Mitchell M 144 STD SINGLE CL/S
FBK 05 Emhart 82 3524 DEEP DOUBLE O/S	FBK 51 Emhart 503 5081 STD DOUBLE	FBK 31 Mitchell M 144 STD DOUBLE CL/S
FBK 06 Emhart 81 3773 STD DOUBLE O/S	FBK 52 Emhart 503 513S STD DOUBLE	FBK 32 Mitchell M 144 STD SINGLE A/S
FBK 07 Emhart 81 3773 STD SINGLE O/S	FBK 60 Emhart 515 5052 STD SINGLE	FBK 33 Mitchell M 144 STD DOUBLE A/S
FBK 10 Emhart 115 868 SINGLE	FBK 61 Emhart 515 5052 STD DOUBLE	FBK 34 Mitchell M 144 DEEP SINGLE
FBK 11 Emhart 115 868 DOUBLE	FBK 80 Emhart 555 D973 DOUBLE	FBK 35 Mitchell M 144 DEEP DOUBLE
FBK 20 Emhart 144 13768 DEEP DOUBLE	FBK 81 Emhart 555 D97 SINGLE	FBK 90 Owens HF 0231 DOUBLE
FBK 21 Emhart 144 13767 STD DOUBLE	FBK 70 Emhart BHF 907 7" DOUBLE	FBK 91 Owens HF 0248 DOUBLE
FBK 22 Emhart 144 13769 STD DOUBLE A/S	FBK 71 Emhart BHF 910 10" DOUBLE	FBK 100 Maul 123
FBK 23 Emhart 144 13770 DEEP DOUBLE A/S	FBK 72 Emhart BHF 907 7"S DOUBLE	FBK 101 Maul 423
FBK 40 Emhart 194 5011 DEEP SINGLE	FBK 73 Emhart BHF 907 8" DOUBLE	

### Production tolerances

MICROTHERM® FBK contains the materials MICROTHERM® SLATTED and MICROTHERM® PANEL. The production tolerances thereby depend on these different products.