Min-K® - K-Shield™ Felt AG Composite

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Min-K - K-Shield Felt AG Composite is an insulation composite system combining the high temperature use limits of fiber felts with the low thermal conductivity benefits of microporous insulation.

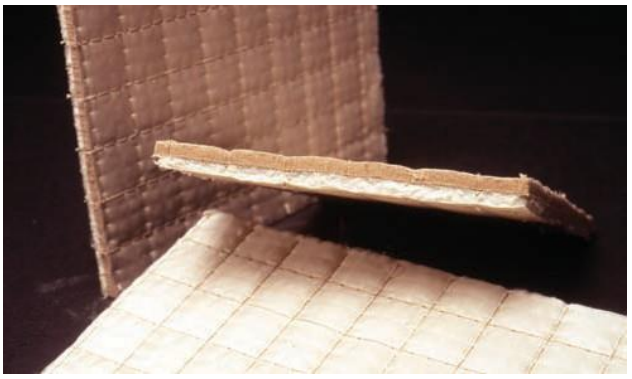
The insulation system is comprised of K-Shield Felt AG and a Min-K microporous core. The two materials are quilted together.

This composite offers several key advantages over either a traditional microporous material, or a quilted fibrous material, while maintaining the low thermal conductivity (shown below) typically seen in microporous products.

The composite insulation system is lighter than comparable Min-K materials. The nominal density of K-Shield Felt AG is 6 pcf, resulting in a final core density of 11 pcf for the 16 pcf Min-K or 7 pcf for the 8 pcf Min-K material, while the thermal conductivity stays virtually constant.

Flexible Min- K consists of a microporous core and an outer-textile facing that typically determines the temperature use limit. High temperature cloths, >1200°F (649°C) are often very costly but by using the K-Shield Felt AG on the hot face, the additional cost of cloth may be eliminated.

Due to the fibrous nature of ½ the thickness of these composites, costly edge binding may be eliminated in some instances. By employing the K-Shield Felt AG on the Hot Face, the composite can be used at temperatures greater than the standard maximum temperature use limit of the microporous core. The acoustic properties of Min-K and the K-Shield Felt AG are complementary as each material offers good sound absorption characteristics at different frequencies.



Features

- Lightweight
- Lower cost
- High temperature use limit
- Good sound absorption at different frequencies
- Increased flexibility

Applications

- Glass feeder bowl backup insulation
- Aluminum transfer troughs
- Hot metal slag runner systems
- High-temperature caulking

Physical Properties	
Nominal density, pcf (kg/m^3)	8, 11 (128, 176)
*Maximum temperature rating, °F(°C)	2000 (1093)
*Continuous use limit, °F(°C)	2000 (1093)
Melting point, °F(°C)	3200 (1760)
Fiber index, %	75 - 80

Thermal Conductivity BTU•in./hr•ft²•°F (W/m•K), ASTM C 201		
Mean temperature	**8 pcf**	**11 pcf**
500°F (260°C)	0.30 (0.04)	0.25 (0.04)
1000°F (538°C)	0.49 (0.07)	0.39 (0.06)
1500°F (816°C)	0.73 (0.11)	0.57 (0.08)
1800°F (982°C)	0.88 (0.13)	0.68 (0.10)