

## Mullite

### Description

A refractory material made of aluminum oxide (alumina) and silicon dioxide (silica) in a ratio of roughly 3 to 2. It is usually a tan or off-white color.

### Advantages

- ✓ Gas tight
- ✓ Lower cost vs. alumina
- ✓ Good chemical resistance
- ✓ Good thermal shock characteristics
- ✓ Wear resistant

### Limitations

- ✓ Poor mechanical strength
- ✓ Should not be used with platinum thermocouples due to contamination of the platinum by silica

### Maximum exposure temperature

3100° F (1700°C)

### Thermal Conductivity

Very Low (3.5 W/m•°K)

### Typical applications

Kilns  
Non-ferrous metals