



# GLOBALENGINEERING

**ARCLEX**

**CEMENT BOARDS**

**REFRAVER**

## High-Performance Electrical Insulation

The electrical insulation materials ensure safer breaker operation via superior controlling of electrical arcs. They are asbestos-free, specified thanks to their unique combination of high strength with electrical & thermal insulation properties.

**ARCLEX** and **Cement Boards** were specially designed with, and for, leading switchgear manufacturers as the leading asbestos replacement.

**REFRAVER** is trusted by leading authorities, approved to the distinguished SNCF St. 273 cat. 2 level.

The materials are machined into complex 3D components for Reyrolle, GE, English Electric, Hawker Siddeley, and many more.

### References:

- Aerospace (airports & planes)
- Rail (80+ networks worldwide)
- Nuclear Power (6 plants)
- Power Generation (16 plants)
- Steel Mills (4 mills worldwide)
- Municipal Electrical Distribution
- Industrial

### Applications:

- Air Brake Circuit Breakers
- Arch Chute components incl. bus bars, side protection panels, washers, etc.

### References:

- Excellent Electrical Insulation
- Resistant to Electrical Shock
- Excellent Thermal Insulation
- Resistant to Thermal Shock
- Strong, tough and durable
- 100% non-asbestos
- Replaces asbestos materials
- Retrofit into existing gear
- No need to alter machinery





# CEMENT BOARDS

## ARCLEX

## REFRAVER

### High-strength, machineable cement based engineering boards

The high temperature engineering materials and structural insulation boards provide outstanding service in arduous applications where high temperatures or heat transferences are a problem or where long term insulation at temperature is required.

They were specifically designed for high performance electrical insulation. The materials have high resistance to electric arcs and has a very low moisture absorption. The materials continue to perform to high levels even in humid atmospheres and at elevated temperatures.

PROPERTY	UNITS	CEMENT BOARDS	REFRAVER	ARCLEX
Max. operating temperature	$^{\circ}\text{C}$	700	700	500
Thermal conductivity @ $200^{\circ}\text{C}$ @ $700^{\circ}\text{C}$	W / mK	0.33 0.43	- 0.66	- 0.75
Compressive strength @ ambient after 24 hours @ $350^{\circ}\text{C}$	MPa	90 38	79 -	231 -
Flexural strength @ ambient after 24 hours @ $350^{\circ}\text{C}$	MPa	30 16	37 -	120 -
Electric surface breakdown @ $90^{\circ}\text{C}$	KV in air	15	11	63.9

The product quality is consistently monitored by in-house quality control engineers and regularly tested and qualified by independent third party testing facilities and classification authorities.

If design services, drawings and fitting instructions are required, the manufacturer works with customers in developing the most suitable solution to their particular problem.

