

# Monolithic Refractory Contributing to CO<sub>2</sub> Emission Reduction “Dry-Free™”

Dry-Free™ technology eliminates lengthy drying process, enabling faster furnace startup and reducing CO<sub>2</sub> emissions.

### Advantages of Dry-Free™

1. No drying process required
2. High explosive spalling resistance
3. High alkali resistant

#### 1. No drying process required

In a domestic incinerator application, Dry-Free™ enabled operation to begin with only preheating, eliminating the drying process. As a result, CO<sub>2</sub> emissions were reduced by 92%, and the construction schedule was shortened by 72 hours. (Fig. 1)

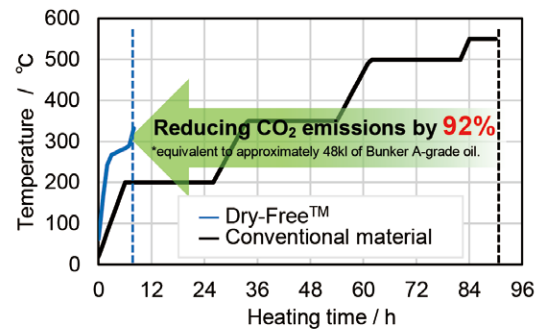


Fig. 1 Drying and preheating schedule example.

#### 2. High explosive spalling resistance

High permeability of the material facilitates efficient water removal, enabling safe and faster furnace startup without the risk of explosive spalling. (Fig. 2)

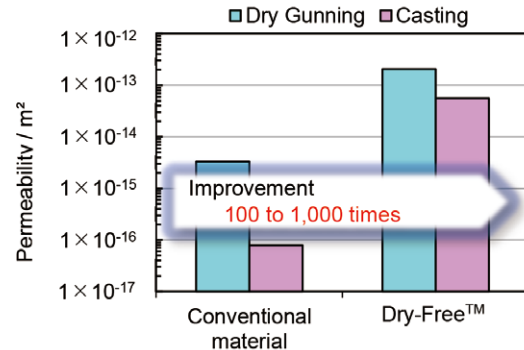


Fig. 2 Permeability.

#### 3. High alkali resistant

A one-year evaluation conducted in an incinerator operating above 1500°C showed that Dry-Free™ exhibited excellent corrosion resistance with minimal spalling and melting damage. (Fig. 3)

### Installation method

- Casting
- Pump casting
- Conventional gunning
- Shotcrete

### Supply record

- Incinerators
- Circulating Fluidized Bed Boilers
- Cement Plants
- And more.

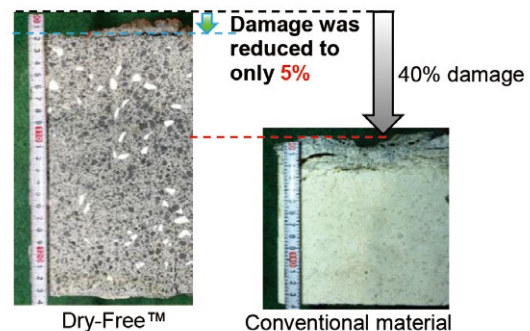


Fig. 3 Damage amount comparison.