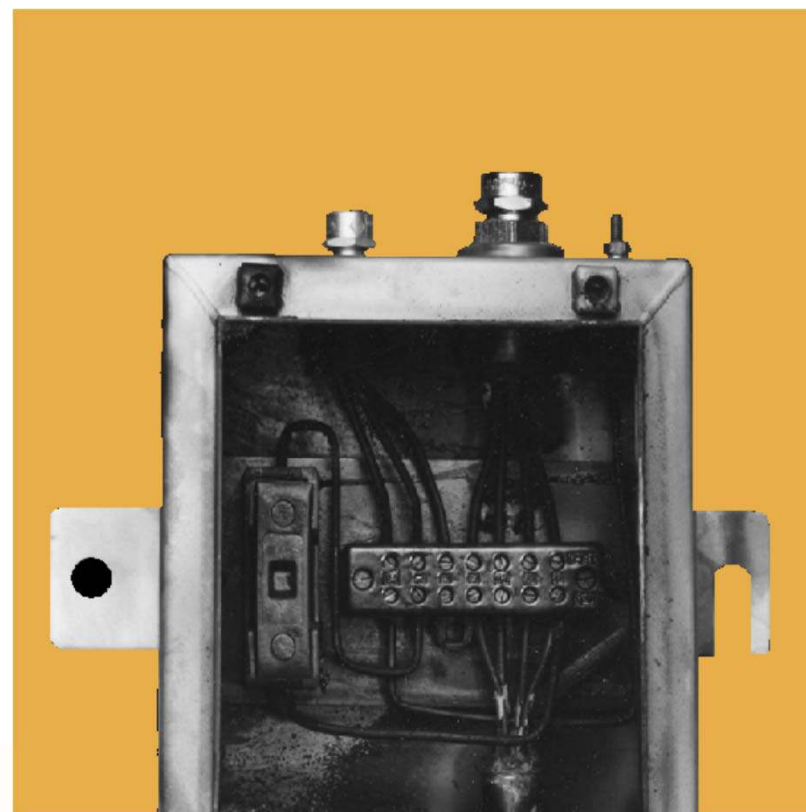




THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
+44 (0) 191 410 4292
www.heatingandprocess.com

Fire Rated Enclosures



Standard Fire Ratings

Available on Abtech Stainless and GRP ranges

IEC331 Fire Test

- 750°C for 3 hours followed by visual inspection
- Then 5kV insulation resistance test

BS6387 Fire Test - 3 separate tests

1. Fire alone: Category C

- Flame at 950°C for 3 hours, cables powered

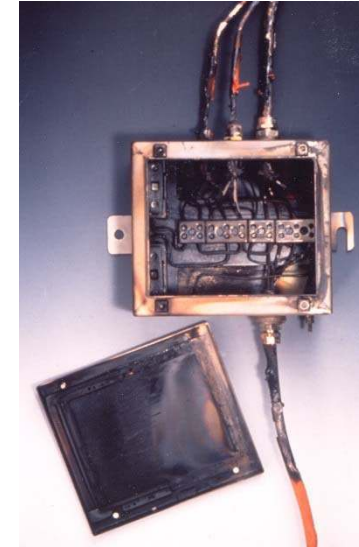
2. Fire with Water: Category W

- Flame at 650°C for 15 minutes then flame and water spray for 15 minutes

3. Fire with Mechanical shock: Category Z

- Flame at 950°C with mechanical shock applied at 15s intervals for 15 minutes

- Note: All fire rated enclosures must be fitted with ceramic terminals



Extreme Fire Resistance Test

- 19kV High Voltage Enclosure (HVJB) coated with **K-Mass™** fireproofing
- 1100°C for 1 hour
 - Tested in accordance with HC fire curve NEK 606
- Under conditions as specified in ASTM E1725 (Section 4) & ASTM E1529 (Section 5)
- Independent test carried out by Intertek and witnessed by Worley Parsons



Preparation for the Test

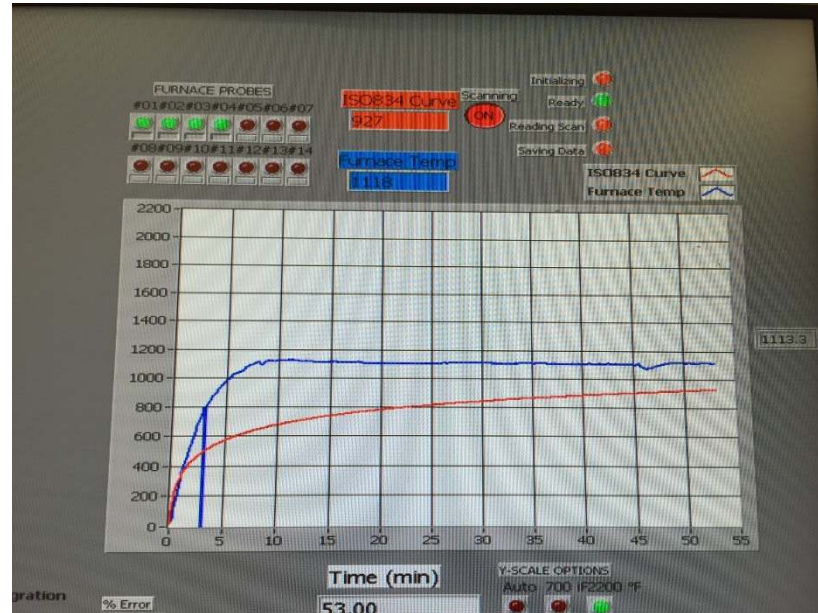


Fitted with ceramic pillars, side plates and phase separators. Clad with K-Mass™

19kV DC applied for 1 minute without breakdown prior to test



1100°C for 1 hour



- Required furnace temperature reached after 7min and 44 seconds. The test then began
- A constant 4kVDC voltage was maintained for the duration of the test
- Leakage was monitored throughout the test
- There was no breakdown

After the Test



Some cooling down is required!

Positive Result



- Maximum recorded temperature within the box was 349°C
- After cool down 19kV DC was re-applied and the enclosure passed



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
+44 (0) 191 410 4292
www.heatingandprocess.com

