

CTL16 - Flammability of Solids - Burning Rate Apparatus (UN) & European Journal (Physical Properties - A Test Series)

Permits testing to the following standards: Flammability of Solids (Test A10), Oxidising Solids (Test A17) and UN Transport of Dangerous Goods Test N1 (for discovering whether the product under test is to be classified into Division 4.1 and determine which packing group the product falls into under UN regulations) – using the Fire Train / mould equipment and accessories

The **Flammability of Solids (Burning Rate)** apparatus is manufactured in accordance with the “Classification, Packaging and Labelling in the EU – testing methods” publication, test A10 (Flammability of Solids) and also with EU test A17 (oxidising solids) and UN Transport of Dangerous Goods Division 4.1 (burning rate) tests. The test serves to characterise the hazards (if any) arising from materials subjected to given stimuli. The Fire Train Test, for readily combustible solids, checks the ability of a substance to propagate combustion by igniting it and determining the burning time across a given length of that material.

As well as acting as a regulatory test, the Fire Train Test result has uses in process safety in the assessment of fire risk with powders and in helping to predict the consequences of dust fires and explosions. If testing to test A17 then please purchase optional powder cone (see options).

Functional Specification and Deliverables

- > Fire Train forming mould with anodised aluminium 90° Vee groove former, support cradle, base plate and brass holding clamps
- > Test Plate: impervious, non-combustible and low thermal conductivity quartz test plate
- > An ignition source is required but is not supplied due to the documentation and certification required to ship a gas cylinder overseas. A small portable hand held butane or propane cylinder with a nozzle diameter of greater than 5mm is all that is required
- > Metric rule for measuring Fire Train distances High grade non-rusting steel rule marked in millimetres complete with UKAS calibration certificate
- > Laboratory stopwatch for timing combustion and linear burning intervals
- > 1 x instruction manual

Benefits:

- > Designed for testing to EU and UN standards
- > Anodised finish means that corrosive samples do not harm the fire train mould
- > Compact size
- > Easy to use

Optional Extras

- > Additional fire train moulds, quartz test plates, sundries
- > A small conical sample chamber for forming a powder pile (3.5 cm dia x 2.5 cm height) is available at additional cost to enable preliminary oxidiser screening of samples (Test A17 only)

Note: Preliminary screening of samples is a requirement of test A17 and is performed in the interest of safety to establish whether the solid sample has oxidising properties. If it does then no further testing is required. However, if it does not have oxidising properties then the full fire train test is then carried out.



Test Apparatus: Powder 250mm long train flame transiting length of the sample. The Fire Train mould prepares sample pile in a V-line for the burning rate test.

