



Radnor Range Ltd

weapons . ordnance . munitions . explosives



Gap Test.



Tube Test.



Fragment Impact Test.

Explosive Composition Trials

Radnor is able to carry out the large scale tests necessary to qualify an explosive composition for military use (as defined in AOP7 and STANAG 4170). These include fragment Impact and Tube Tests.

Fragment Impact:

Our fragment attack facility has the capability to fire the STANAG and EMTAP steel fragments at velocities of up to 2,500m/s, explosive compositions to EMTAP Test No. 36 and ammunition items to STANAG 4496. High speed video is used as the primary diagnostic tool to categorize the reaction. Frame rates of up to 150,000 fps and shutter speeds in excess of 3 million provide highly resolved images of the reaction progression from fragment impact.

Gap Tests:

We can measure the sensitiveness of an explosive composition via the Gap Test according to UN, STANAG or EMTAP test protocols. A sample of the explosive composition under test is confined within a steel tube, and a shock wave passed through it by detonation of a donor explosive through an attenuation gap or varying thickness and material.

Tube Tests:

Tube tests and sealed vessel tests can be carried out to EMTAP or STANAG Test protocols. A sample of the explosive composition under test is confined within a steel tube and a stimulus applied (eg: fast or slow heating). The degree of fragmentation of the tube gives an indication of the explosiveness of the composition.

Sensitivity to Electrostatic Discharge

Radnor can assess kilogram quantities of explosive for sensitiveness to electrostatic discharge. Sparks with energies in excess of 15 Joules at 30 kilovolts potential can be discharged through a sample remotely in accordance with STANAG 4490.

Data analysis and a fully configured test report are provided with all trials, suitable for direct submission to Sentencing Authorities, where appropriate.

For further information or to book a test, please use the contact details below.



Radnor is an MoD UK approved test house

T: +44 (0)1544 267441
F: +44 (0)1544 267431
E: info@radnor.org.uk

Radnor Ranges Ltd
11 Broadaxe Business Park,
Presteigne, Powys LD8 2UH

www.radnor.org.uk