BAM IST CONSUMABLES - CYLINDERS

BAM Impact Sensitivity Tester for Explosives

BAM Impact Sensitivity Tester (also known as Fallhammer) is a standard testing instrument for determination of impact sensitivity of energetic materials such as high explosives, primary explosives, propellants and pyrotechnics.

Application

Each energetic material requires its activation energy for initiation of decomposition, burning, deflagration or detonation. This energy varies with the type of stimuli and conditions so that several standards were globally adopted for testing by impact, friction and electrostatic discharge stimuli. These sensitivity data provide essential characteristics of each material and is a key information for its production, manipulation, handling, processing and transportation.

Energetic materials may change their properties depending on external conditions therefore sensitivity testing is often combined with standard ageing procedures. Sensitivity testing is a necessary part of the quality management of production process and transport or storage classification.

Principle

BAM method for sensitivity testing is based on observation of sample reaction after the exposition to impact between 2 steel cylinders guided by a steel collar. Impact energy is determined by the height and weight of impacting body. Precision and surface roughness of used cylinders and collars is essential for testing reproducibility.

Description

BAM IST Cylinder is a precise custom-made part. It is made of high quality bearing steel hardened to 60-65 HRC and ground to reach required precision. The production process involves strict quality inspection.

Specifications

Dimensions	D10 x L10 mm
Diameter precision	-0.005 to -0.003 mm
Surface	ground (R_z<1), polished

Compliance

UN RTDG 2003 [13.4.2 Test 3(a)(ii)], STANAG4489
MIL-STD-1751A, EN 13631-4:2002
EC Directive 92/69/EEC (m. A14)

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