

ABSTRACT for 2018 IMEMTS

**INSENSITIVE MUNITIONS INDUSTRY CONTRIBUTION FOR
NEW STANAG - AOP EDITION OF THE SLOW HEATING TEST**

**Prepared by the Hazard Assessment & Classification Expert Working Group of the
INSENSITIVE MUNITIONS EUROPEAN MANUFACTURER GROUP (IMEMG)**

Yves GUENGANT (chairman)
Pr Malcolm COOK
David SIMMONS
Alexandre LE FRANCOIS
Michel VIVES
Dr Werner ARNOLD
Sean RANDALL
Frederic NOZERES
Laurent BONHOMME
Dr Massimo CASTIGLIA
Carole FOURNIER
Dr Gerhard HUBRICHT

ARIANEGROUP SAS
AWE
BAE-Systems Land
CEA
MBDA France
MBDA TDW GmbH
MBDA UK Ltd
NEXTER Munitions
ROXEL France
RWM Italia SpA
TDA ARMEMENTS SAS
RHEINMETALL Waffe Munition GmbH

Currently, various works are conducted by National experts from AC 326 in the aim to design a new edition of STANAG - AOP 4382. These works have been encouraged by the MSIAC survey of the Slow Heating tests and the MSIAC Science of Cook-off workshop. Thus, IMEMG proposes feedback coming from European Insensitive Munitions Industry about the Slow Heating trials requirements. IMEMG is the European Organisation that brings together the twenty-two leading armament manufacturing groups working with IM technologies. It aims to express the viewpoint of the European armament industry with regards to relevant transnational regulations and requirements. This paper presents the analysis carried out by the Hazard Assessment & Classification Expert Working Group of IMEMG. It has been focused on similar topics to the MSIAC survey: test standards (IM & UN), heating rate value and its relevance, temperature preconditioning, oven & heating system design, test item restraints and orientation, reaction temperature definition, minimum instrumentation requirements, etc. In addition, it appears that the Response Descriptors seem to be almost unchanged in the next AOP 39 edition still carrying the 20 Joules criterion for fragment projection. These requirements are still questionable for the Type V response requirement for the slow heating test. If we consider that the slow heating threat can only be achieved in an enclosed oven (the whole process requesting at least 30 hours), is the actual criterion stipulating that the energy of any fragments produced should not exceed 20 Joules at 15 meters range still relevant? Indeed, such propelled fragments cannot even penetrate 2 mm thick aluminium sheets, in which case a type IV reaction requirement seems to be more appropriate. This paper will present the European IM industry proposals concerning current discussions for the forthcoming updates of relevant STANAG - AOP 4382.