

White Paper: Potting compounds for ATEX certification

Getting your product ATEX certified for use in explosive environments can be a challenging process. If your ATEX protection concept depends on a [potting compound](#), then the certification body will have a number of technical and commercial demands of you, the material, and the material supplier/manufacturer.

Our latest White Paper, [***ATEX Certification for Electronics Potting Compounds and Encapsulants***](#), looks at the background to this process, and details a number of our potting compounds which have enabled customers to get ATEX certification on their products.

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ATEX Certification for Electronics Potting Compounds and Encapsulants

By Jack Hardy, BSc, Internal Sales Executive
Peter Swanson, MA (Cantab), Managing Director
INTERTRONICS

Introduction

There are a number of challenges facing the manufacturers and users of electronics and electrical equipment which are to be deployed in hazardous, possibly explosive environments. The legal framework that businesses must follow in order to protect employees and property from explosion risk in areas with a potentially explosive atmosphere is ATEX.

ATEX

ATEX is the name commonly given to the two European Directives for controlling explosive atmospheres:

- ATEX 95 equipment directive 94/9/EC (2014/34/EU as of April 2016) pertains to equipment and protective systems intended for use within potentially explosive atmospheres.
- ATEX 137 workplace directive 99/92/EC outlines the minimum health and safety requirements to protect workers potentially at risk from explosive atmospheres.

For these purposes, an explosive atmosphere is defined as a mixture of dangerous substances with air, under atmospheric conditions, in the form of gases, vapours, mist or dust in which, after ignition has occurred, combustion spreads to the entire unburned mixture. Ignition sources could be open flames, high temperature, mechanically generated sparks and electrically generated sparks. Many workplaces may contain, or have activities that produce, explosive or potentially explosive atmospheres; for example, paint spraying may release flammable gases or vapours, or in factories where they handle fine organic dust such as flour or sawdust.



Figure 1 - Symbol for ATEX certified electrical equipment for explosive atmospheres

ATEX 95 directive 94/9/EC (superseded by 2014/34/EU in April 2016) details the regulations which apply to all equipment intended for use in explosive atmospheres, whether electrical or mechanical, including protective systems. If the product will need to meet the ATEX directives, then consideration of the requirements should start at the design process. Manufacturers must ensure that their products meet these essential health and safety



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Supplied by:



INTERTRONICS

12a Station Field Industrial Estate, Banbury Road, Kidlington

Oxfordshire England OX5 1JD

t 01865 842842 e info@intertronics.co.uk

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