

Guideline

G-28

CLAP

FORM N°X163

Version : 1

Directive 2014/68/EU

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Directive References: Annex I § 7.5

Subject: ESR on material –Bending rupture for materials with low thickness

Question:

How to apply Annex I, section 7.5 on the bending rupture energy measured on an ISO V test piece for base materials whose, due to its thickness, the collection of a test piece of section 10 mm x 10 mm is not possible?

Answer:

The value of 27 Joules required on Annex 1, section 7.5, means the use of test piece of section 10 mm x 10 mm and an impact test KV according EN ISO 148-1:2010, Metallic materials – Charpy pendulum impact test – Part 1: Test method.

When a standard size test piece of 10mm x10 mm cannot be obtained, it is recommended to use a sub-sized specimen with a cross section of 7,5mm (7,5mm x 10mm) or 5mm (5mmx10mm) and to adjust the value of impact test (see EN 13445-2 and EN 13480-2).

When a sub-sized specimen (5mmx10mm) cannot be obtained due to the dimensions of the material, the verification of the specified 27 Joules is not relevant but the properties of the material are still to be guaranteed by the material manufacturer.

See also Guideline G-17 (CLAP X153) and Guideline G-13 (CLAP X149).