

List of products (Status 2015-01-01)



Certified Reference Material for the tensile test

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List of products (Status 2015-01-01)

Certified reference material (CRM) for tensile testing

The certified reference specimens named in this list of products are available in the following levels of strength:

CRM	Type of specimen	Parameter	Available packaging units
ZR002	Round bar specimen $d_0 = 10$ mm; threaded end M16	$R_m = 531$ MPa $A = 16,0$ %	6 test specimens 30 test specimens
ZR003	Material to machine round specimen with $d_0 = 10$ mm	$R_m = 930$ MPa $A = 18$ %	6 sections (for 6 specimens) 30 sections (for 30 specimens)
ZW001	ELEVATED TEMPERATURE: Material to machine round specimen with $d_0 = 10$ mm, 350 °C	$R_m = 740$ MPa $A = 15$ %	6 sections (for 6 specimens) 30 sections (for 30 specimens)
ZF002	Sheet material: Dimensions ca. 300 x 290 x 1 mm for manufacturing of specimen in the lab, shape 2 acc. table B.1 of EN ISO 6892-1:2009	$R_m = 314$ MPa $A = 39,0$ %	1 sheet (for 6 test specimens) 5 sheets (for 30 test specimens)
ZF003	Flat specimen Thickness: 1,5 mm, shape 2 acc. table B.1 of EN ISO 6892-1:2009	$R_m = 850$ MPa $A = 17$ %	6 test specimens 30 test specimens
ZF004	Flat specimen Thickness: 1 mm, shape 2 acc. table B.1 of EN ISO 6892-1:2009	$R_m = 292$ MPa $A = 44,0$ %	6 test specimens 30 test specimens
ZF007A	Flat specimen Thickness: 15 mm, width 25 mm acc. table D.2 of EN ISO 6892-1:2009	$R_m = 650$ MPa $A = 25,0$ %	6 test specimens 30 test specimens



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CRM	Type of specimen	Parameter	Available packaging units
ZF007B	Flat specimen Thickness: 5 mm or 3 mm, width 20 mm acc. table D.2 of EN ISO 6892-1:2009	$R_m = 660 \text{ MPa}$ $A = 25,0 \%$	6 test specimens 30 test specimens
ZAI002	Flat specimen Thickness: 1 mm, shape 2 acc. table B.1 of EN ISO 6892-1:2009	$R_m = 231 \text{ MPa}$ $A = 12,1 \%$	6 test specimens 30 test specimens



For each product you will find further details of the application and the technical evaluation of the yielded data.

Prices for Germany excl. VAT. Other countries: Delivery and duty costs will be added. Also see: www.ifep.eu



PMF-1a

Product & size of test specimen set	Specification	Aim	Benefit for the customer	We provide	Available for the following parameters	Prices in Euro excl. VAT; delivery costs: see www.ifep.eu
6 certified reference test specimens Reference material certified by IfEP acc. to ISO Guides 34 and 35.	PMF-1a Reference material	Proof of competence EN ISO/IEC 17025; Mean point 5.6	Certificate with reference values and measurement uncertainty	Internal monitoring of the testing machine	Round bar test specimen Strength Elongation Reduction of area	335,- 
					Flat test specimen Strength Elongation	251,- 
Assurance of results from the direct calibration of test equipment by indirect verification of the testing machine in interplay with all relevant components. Immediately identification of troubles during the working day. The measurement uncertainty for follow-up tests can be estimated by the laboratory.						



PMF-1b

Product & size of test specimen set	Specification	Aim	Benefit for the customer	We provide	Available for the following parameters	Prices in Euro excl. VAT; delivery costs: see www.ifep.eu
30 certified reference test specimens Reference material certified by IfEP acc. to ISO Guides 34 and 35.	PMF-1b Reference material	Proof of competence EN ISO/IEC 17025; Mean point 5.6	Certificate with reference values and measurement uncertainty	Internal monitoring of the testing machine	Round bar test specimen Strength Elongation Reduction of area	1.450,- 
					Flat test specimen Strength Elongation	1.100,- 
Assurance of results from the direct calibration of test equipment by indirect verification of the testing machine in interplay with all relevant components. Immediately identification of troubles during the working day. The measurement uncertainty for follow-up tests can be estimated by the laboratory.						

PMF-2 / bilateral proficiency test

Product & size of test specimen set	Specification	Aim	Benefit for the customer	We provide	Certified parameter	Prices in Euro excl. VAT; delivery costs: see www.ifep.eu
6 test specimens from completed proficiency test + IfEP certificate of assessment Assessment acc. to criteria of ISO/IEC 17043.	PMF-2 bilateral proficiency test	Proof of competence EN ISO/IEC 17025; Mean point 5.6	Certificate with stated assigned value, assessment with Z-Scores and statement of the measurement uncertainty of the respective proficiency test	External monitoring of the testing machine	Round bar test specimen Strength Elongation Reduction of area	420,- 
					Flat test specimen Strength Elongation	295,- 
The laboratory takes part bilaterally in a completed proficiency test. The laboratory will receive the same material as used in the proficiency test and will be evaluated following the same criteria. Inasmuch the final report is already published the laboratory will not be mentioned in it. It will receive a certificate with additional information instead, which makes possible an assessment of the performance.						

PMF-3

Product & size of test specimen set	Specification	Aim	Benefit for the customer	We provide	Certified parameters	Prices in Euro excl. VAT; delivery costs: see www.ifep.eu
30 certified reference test specimen + IfEP certificate (on customer request)	PMF-3	Trueness and precision of the test facility for tensile testing Proof of competence EN ISO/IEC 17025; Mean points 5.4; 5.6 and 5.9	Certificate (validity 12 month) Documentation of all relevant data and information	Certified reference value Bias of certified reference value Precision of the test facility Measurement uncertainty of single values Measurement uncertainty of the test facility Advice for warning and action limits	Round bar test specimen Strength Elongation Reduction of area	2.100,- 
					Flat test specimen Strength Elongation	1.500,- 
Analysis of trueness and precision of a test facility based on ISO 5725. Derivation of appropriate limits for trueness, precision, measurement uncertainty and stability of the testing process.						

We order:

Please fax to: +49 (0) 2365 / 209 00 35 or send by e-mail to: sorge@ifep.de

Certified reference material (see page 2 and 3)	Specification of the product (see pages 4-7)	Number of test specimen sets (1 set = 6 specimens)	Price in € excl. VAT
<i>Example: ZR002</i>	<i>PMF-1b</i>	<i>2</i>	<i>2.900,-</i>

Company:			_____ Date / signature / stamp
Department:			
Contact person: <input type="checkbox"/> Ms. <input type="checkbox"/> Mr.			
Address:			
ZIP Code:	City:	Country:	<input type="checkbox"/> german <input type="checkbox"/> english
Telephone:	Fax:	E-Mail:	
Necessary additional information: Your companies' tax identification number:			
Billing address (if differing):		Delivery address (if differing):	
Further invoice-details, e.g. cost unit:			
I confirm with my signature that the service is carried out for my/our company (and not for a private person).			