

## Information sheet

### Proficiency tests metal 2021

Organiser:	<b>Institut für Eignungsprüfung IfEP GmbH, Marl, Germany</b>
Registration:	By means of the attached form
Intention:	Confirmation of technical competence of participating laboratories
Data evaluation:	Based on ISO/IEC 17043 and ISO 13528. <b>Usually the participation is approved for accreditations according to NADCAP.</b>
Confidentiality:	Each laboratory receives a specific code number
Documentation:	Certificate Final report with a list of participants in alphabetical order with declaration of consent; determination of measurement uncertainty according to the current standards and guidelines. Details for subcontracting of single parts: please see <a href="http://www.ifep.de">www.ifep.de</a> , section „proficiency tests“

<b>No. 2101-HB</b> Hardness testing Brinell	Test standard:	ISO 6506, part 1, HBW 2,5/187,5 and/or HBW 10/3000
	Material:	Reference hardness block
	Test program:	five hardness measurements on reference hardness block
	Test sequence:	Each participant receives a reference specimen.
	Results to be submitted:	five hardness values of the hardness blocks
	Assigned value:	Certified reference values of MPA NRW Dortmund, Germany
	Additional information provided by organiser:	Statement to measurement uncertainty
	Participation fee:	<b>HBW 2,5/187,5 or HBW 10/3000:</b> Germany 330 € other countries + transport costs* <b>HBW 2,5/187,5 and HBW 10/3000:</b> Germany 490 € (245 €/proficiency test); other countries + transport costs* estimated start: III. quarter 2021

<b>No. 2101-HR</b> Hardness testing Rockwell C	Test standard:	ISO 6508, part 1, HRC
	Material:	Reference hardness block
	Test program:	3 x five hardness measurements on reference hardness blocks
	Test sequence:	Each participant receives three reference specimens.
	Results to be submitted:	3 x five hardness values of the hardness blocks
	Assigned Value:	Certified reference values of MPA NRW Dortmund, Germany
	Additional information provided by organiser:	Statement to measurement uncertainty
	Participation fee:	Germany 330 € other countries + transport costs* estimated start: III. quarter 2021

<b>No. 2101-HV</b> Hardness testing Vickers	Test standard:	ISO 6507, part 1, HV 1 and/or HV 10/HV 30
	Material:	Reference hardness block
	Test program:	five hardness measurements on reference hardness block
	Test sequence:	Each participant receives a reference specimen.
	Results to be submitted:	five hardness values of the hardness blocks
	Assigned value:	Certified reference values of MPA NRW Dortmund, Germany
	Additional information provided by organiser:	Statement to measurement uncertainty
	Participation fee:	<b>HV 1 or HV 10/HV 30:</b> Germany 330 € other countries + transport costs* <b>HV 1 and HV 10/HV 30:</b> Germany 490 € (245 €/proficiency test); other countries + transport costs* estimated start: III. quarter 2021

\* Prices excl. valid VAT, transport costs, see [www.ifep.eu](http://www.ifep.eu)

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No. 2103 Emission spectrometry steel	Test standard:	In-house procedure
	Material:	Material similar to daily laboratory work (no „synthetic alloy“) <b>a) low alloyed steel</b> <b>b) unalloyed steel</b>
	Results to be submitted:	Characteristic values according to specifications
	Assigned value:	Consensus value calculated from the results of all participants
	Additional information:	Statement to measurement uncertainty
	Participation fee:	<b>one alloy:</b> Germany 310 € other countries + transport costs* <b>two alloys:</b> Germany 550 € (275 €/proficiency test); other countries + transport costs* estimated start: II. quarter 2021
No. 2104 Emission spectrometry (non ferrous- metals)	Test standard:	In-house procedure
	Material:	Material similar to daily laboratory work (no „synthetic alloy“) <b>Aluminium-alloy</b>
	Results to be submitted:	Characteristic values according to specifications
	Assigned value:	Consensus value calculated from the results of all the participants
	Additional information:	Statement to measurement uncertainty
	Participation fee:	Germany 310 € other countries + transport costs* estimated start: II. quarter 2021
No. 2105 Resistance against intergranular attack	Test Standard:	ASTM A262, practice B, Streicher test
	Material:	Stainless steel
	Production of specimens:	by the organiser
	Results to be submitted:	Mass loss
	Assigned value:	Consensus value calculated from the results of all participants
	Participation fee:	Germany 310 € other countries + transport costs* estimated start: II. quarter 2021
No. 2106 Indirect verification of salt spray test chamber	Test standard:	ISO 9227
	Material:	Reference specimens
	Production of specimens:	by the organiser
	Results to be submitted:	Mass loss
	Assigned value:	Reference value
	Participation fee:	Germany 275 € other countries + transport costs* estimated start: II. quarter 2021
No. 2107-RAI Tensile test aluminium (round specimens)	Test standard:	ISO 6892-1
	Material:	Standard samples: 6 round test specimens, aluminium, $d_0 = 10$ mm, specimen head: ISO thread M16 as per standard, Alternate samples: specimens with $d_0 = 6$ mm, specimen head: ISO thread M10, and/or 6 material sections, diameter app. 20 mm, length 150 mm each.
	Production of specimens:	by the organiser / by the participants
	Results to be submitted:	Characteristic values according to the test standard, additionally "Young's Module" and the measurement uncertainty
	Assigned Value:	Consensus values calculated from the results of the participants
	Additional information:	Statement to the influence of specimen preparation, to measurement uncertainty of the test method
	Participation fee:	<b>2107-RAIM: Machined specimens:</b> Germany 370 € other countries + transport costs* <b>2107-RAIU: Unmachined specimens:</b> Germany 290 € other countries + transport costs* <b>Machined AND unmachined specimens:</b> Germany 600 € (300 €/proficiency test); other countries + transport costs* estimated start: III. quarter 2021

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<b>No. 2107-FAI</b> <b>Tensile test aluminium</b> <b>(flat specimens)</b>	Test standard:	ISO 6892-1
	Material:	6 flat specimens, aluminium, geometry according to ISO 6892-1, annex B, table B1, $a_0 = 1-3$ mm, $b_0 = 20$ mm, and/or 6 material sections of about 32 x 280 mm <sup>2</sup> each
	Production of specimens:	by the organiser / by the participants
	Results to be submitted:	Characteristic values according to the test standard, additionally "Young's Module" and the measurement uncertainty
	Assigned Value:	Consensus values calculated from the results of the participants
	Additional information:	Statement to the influence of specimen preparation, to measurement uncertainty of the test method
	Participation fee:	<b>2107-FAIM: Machined specimens:</b> Germany 300 € other countries + transport costs* <b>2107-FAIU: Unmachined specimens:</b> Germany 255 € other countries + transport costs* <b>Machined AND unmachined specimens:</b> Germany 500 € (250 €/proficiency test); other countries + transport costs* estimated start: III. quarter 2021
<b>No. 2108</b> <b>Non-destructive</b> <b>testing</b>	Test standard:	UT (weld), RT, MT
	Material:	Steel specimens app. 200 x 200 x 10 mm <sup>3</sup> with weld seam in the middle, with flaws defined for the test method
	Results to be submitted:	Type / position / size of flaws
	Assigned value:	Sample solution in agreement with Fraunhofer IZFP Saarbrücken, Germany
	Test sequence:	Each sample will be tested by several participants. There will be an arrangement of the dates in advance.
	Participation fee:	<b>One method:</b> Germany 350 € other countries + transport costs* <b>Two methods:</b> Germany 620 € (310 €/proficiency test); other countries + transport costs* <b>Three methods:</b> Germany 840 € (280 €/proficiency test); other countries + transport costs* estimated start: III. quarter 2021
<b>No. 2109-R</b> <b>Tensile test steel</b> <b>(round specimens)</b>	Test standard:	ISO 6892-1
	Material:	Standard samples: 6 round test specimens, steel, $d_0 = 10$ mm, specimen head: ISO thread M16 as per standard, Alternate samples: specimens with $d_0 = 6$ mm, specimen head: ISO thread M10, and/or 6 material sections, diameter app. 25 mm, length 150 mm each
	Production of specimens:	by the organiser / by the participants
	Results to be submitted:	Characteristic values according to the test standard, additionally "Young's Module" and the measurement uncertainty
	Assigned Value:	Consensus values calculated from the results of the participants
	Additional information:	Statement to the influence of specimen preparation, to measurement uncertainty of the test method
	Participation fee:	<b>2109-RM: Machined specimens:</b> Germany 450 € other countries + transport costs* <b>2109-RU: Unmachined specimens:</b> Germany 350 € other countries + transport costs* <b>Machined AND unmachined specimens:</b> Germany 700 € (350 €/proficiency test); other countries + transport costs* estimated start: IV. quarter 2021

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<b>No. 2109-RW</b> <b>Tensile test of</b> <b>round bar steel</b> <b>at elevated temperature</b>	Test standard:	ISO 6892-2
	Material:	heat-resistant steel, testing at 200 °C Standard samples: 6 round test specimens, steel, $d_0 = 10$ mm, specimen head: ISO thread M16 as per standard, Alternate samples: specimens with $d_0 = 6$ mm, specimen head: ISO thread M10, and/or 6 material sections, dimensions 20 x 20 mm <sup>2</sup> , length 150 mm each.
	Production of specimens:	by the organiser
	Results to be submitted:	Characteristic values according to the test standard, additionally "Young's Module" and the measurement uncertainty (not evaluated)
	Assigned value:	Consensus values calculated from the results of the participants
	Additional information:	Statement to the measurement uncertainty of the test method
	Participation fee:	<b>2109-RWM: Machined specimens:</b> Germany 450 € other countries + transport costs* <b>2109-RWU: Unmachined specimens:</b> Germany 350 € other countries + transport costs* <b>Machined AND unmachined specimens:</b> Germany 700 € (350 €/proficiency test); other countries + transport costs* estimated start: IV. quarter 2021
<b>No. 2110F</b> <b>Tensile test steel</b> <b>flat specimens, 1-3 mm</b>	Test standard:	ISO 6892-1
	Material:	6 flat specimens, steel, geometry according to ISO 6892-1, annex B, table B1, $a_0 = 1-3$ mm, $b_0 = 20$ mm, and/or 6 material sections of about 32 x 280 mm <sup>2</sup> each
	Production of specimens:	by the organiser / by the participants
	Results to be submitted:	Characteristic values according to the test standard, additionally "Young's Module" and the measurement uncertainty
	Assigned Value:	Consensus values calculated from the results of the participants
	Additional information:	Statement to the influence of specimen preparation, to measurement uncertainty of the test method
	Participation fee:	<b>2110FM: Machined specimens:</b> Germany 330 € other countries + transport costs* <b>2110FU: Unmachined specimens:</b> Germany 285 € other countries + transport costs* <b>Machined AND unmachined specimens:</b> Germany 550 € (275 €/proficiency test); other countries + transport costs* estimated start: IV. quarter 2021
<b>No. 2111</b> <b>Charpy impact test</b> <b>ready to test specimens</b>	Test standard:	ISO 148-1 / ISO 148-2 (2 mm striker)
	Material:	Charpy test specimens, impact energy low level (RT), average level (RT), high level (RT), super high level (RT)
	Production of specimens:	<b>by the organiser</b>
	Results to be submitted:	5 values according to ISO 148 each energy level
	Assigned value:	Consensus value, limits according to ISO 148-2
	Additional information:	Measurement uncertainty according to ISO 148-2
	Participation fee:	<b>One energy level:</b> Germany 310 € other countries + transport costs* <b>Two energy levels:</b> Germany 490 € (245 €/proficiency test); other countries + transport costs* <b>Three energy levels:</b> Germany 630 € (210 €/proficiency test); other countries + transport costs* <b>Four energy levels:</b> Germany 760 € (190 €/proficiency test); other countries + transport costs* estimated start: IV. quarter 2021

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<b>No. 2111</b> <b>Charpy impact test</b> <b>unmachined specimens</b>	Test standard:	ISO 148-1 / ISO 148-2 (2 mm striker)
	Material:	Material sections, app. dimensions: 57 x 12 x 12 mm <sup>3</sup> , impact energy low level (RT), average level (RT), high level (RT), super high level (RT)
	Production of specimens:	<b>by the participants</b>
	Results to be submitted:	5 values according to ISO 148 each energy level
	Assigned value:	Consensus value, limits according to ISO 148-2
	Additional information:	Measurement uncertainty according to ISO 148-2
	Participation fee:	<b>One energy level:</b> Germany 250 €; other countries + transport costs* <b>Two energy levels:</b> Germany 400 € (200 €/proficiency test); other countries + transport costs* <b>Three energy levels:</b> Germany 525 € (175 €/proficiency test); other countries + transport costs* <b>Four energy levels:</b> Germany 660 € (165 €/proficiency test); other countries + transport costs* estimated start: IV. quarter 2021
<b>No. 2113</b> <b>Metallography,</b> <b>image</b> <b>analysis</b>	Test standard:	e. g. ISO 643, ASTM E 112 appointment also possible via digital image processing
	Material:	Micrograph; in part simulated, in digital form
	Results to be submitted:	e.g. grain size steel / phase content steel / phase content aluminium
	Assigned Value:	Consensus value, sample solution
	Participation fee:	Germany 255 €; other countries + transport costs* estimated start: III. quarter 2021
<b>No. 2114-a</b> <b>Metallography,</b> <b>sample</b> <b>preparation</b>	Test standard:	e. g. ISO 643, ASTM E 112
	Material:	Metallic sample for grinding preparation and analysis
	Results to be submitted:	e.g. carbon content, grain size
	Assigned Value:	Consensus value, sample solution
	Participation fee:	Germany 275 €; other countries + transport costs* estimated start: III. quarter 2021
<b>No. 2114-b</b> <b>Metallography,</b> <b>depth of</b> <b>decarburization</b>	Test standard:	ISO 3887
	Material:	Metallic sample for analysis
	Results to be submitted:	Acc. to standard
	Assigned Value:	Consensus value, sample solution
	Participation fee:	Germany 275 €; other countries + transport costs* estimated start: III. quarter 2021
<b>Nr. 2140-HS</b> <b>Vitreous and porcelain</b> <b>enamels -</b> <b>High voltage test</b>	Test standard:	ISO 2746
	Material:	Vitreous steel sheet
	Production of specimens:	By the organiser
	Test procedure:	Every specimen is tested by several participants. The arrangement of testing dates is done via e-mail.
	Results to be submitted:	according to standard
	Assigned Value:	Determined by the organiser
	Participation fee:	<b>2140-HS:</b> Germany 310 €; other countries + transport costs* <b>2140-HS and 2141-SD:</b> Germany 550 € (275 €/proficiency test); other countries + transport costs* estimated start: III. quarter 2021
<b>Nr. 2141-SD</b> <b>Measurement of coating</b> <b>thickness -</b> <b>Magnetic method</b>	Test standard:	ISO 2178
	Material:	Vitreous steel sheet, coating thickness app. 1-2 mm.
	Production of specimens:	By the organiser
	Test procedure:	Every specimen is tested by several participants. The arrangement of testing dates is done via e-mail.
	Results to be submitted:	Values according to ISO 28721-1
	Assigned Value:	Determined by the organiser
	Participation fee:	<b>2141-SD:</b> Germany 310 €; other countries + transport costs* <b>2141-SD and 2140-HS:</b> Germany 550 € (275 €/proficiency test); other countries + transport costs* estimated start: III. quarter 2021

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### Registration proficiency tests metal 2021: part 1

via fax to: +49 (0) 2365 / 209 00 35 or via e-mail to: [Mende@ifep.de](mailto:Mende@ifep.de)

We will participate in the following proficiency test(s):

No.	please mark	Proficiency test	Expected Start (quarter/2021)	Return of the results	Participation fee
2101-HB-a	<input type="checkbox"/>	Hardness testing Brinell HBW 2,5/187,5	III/2021	4 weeks	2101-HB-a or 2101-HB-b: total 330 €* 2101-HB-a and 2101-HB-b: total 490 €*
2101-HB-b	<input type="checkbox"/>	Hardness testing Brinell HBW 10/3000	III/2021	4 weeks	
2101-HR	<input type="checkbox"/>	Hardness testing Rockwell C	III/2021	4 weeks	330 €*
2101-HV-a	<input type="checkbox"/>	Hardness testing Vickers HV 1	III/2021	4 weeks	2101-HV-a or 2101-HV-b: total 330 €* 2101-HV-a and 2101-HV-b: total 490 €*
2101-HV-b	<input type="checkbox"/>	Hardness testing Vickers HV 10/HV 30	III/2021	4 weeks	
2103a	<input type="checkbox"/>	Emission spectrometry low alloyed steel	II/2021	4 weeks	1 alloy: total 310 €*
2103b	<input type="checkbox"/>	Emission spectrometry unalloyed steel	II/2021	4 weeks	2 alloys: total 550 €*
2104	<input type="checkbox"/>	Emission spectrometry Aluminium-alloy	II/2021	4 weeks	310 €*
2105	<input type="checkbox"/>	Resistance to intergranular corrosion	II/2021	4 weeks	310 €*
2106	<input type="checkbox"/>	Indirect verification of salt spray test chamber	II/2021	4 weeks	275 €*
2107-RAIM	Standard samples: <input type="checkbox"/>	Tensile test aluminium, round specimens <b>machined specimens</b>	III/2021	4 weeks	2107-RAIM: 370 €* 2107-RAIU: 290 €* 2107-RAIM and 2107-RAIU: total 600 €*
	Alternate samples: <input type="checkbox"/>				
2107-RAIU	<input type="checkbox"/>	Tensile test aluminium, round specimens <b>unmachined specimens</b>	III/2021	4 weeks	
2107-FAIM	<input type="checkbox"/>	Tensile test aluminium, flat specimens <b>machined specimens</b>	III/2021	4 weeks	2107-FAIM: 300 €* 2107-FAIU: 255 €* 2107-FAIM and 2107-FAIU: total 500 €*
2107-FAIU	<input type="checkbox"/>	Tensile test aluminium, flat specimens <b>unmachined specimens</b>	III/2021	4 weeks	
2108a	<input type="checkbox"/>	UT, ultrasonic testing (weld)	III/2021	1 week	1 method: total 350 €* 2 methods: total 620 €* 3 methods: total 840 €*
2108b	<input type="checkbox"/>	RT, radiographic testing	III/2021	1 week	
2108c	<input type="checkbox"/>	MT, magnetic particle testing	III/2021	1 week	
2109-RM	Standard samples: <input type="checkbox"/>	Tensile test steel round specimens <b>machined specimens</b>	IV/2021	4 weeks	2109-RM: 450 €* 2109-RU: 350 €* 2109-RM and 2109-RU: total 700 €*
	Alternate samples: <input type="checkbox"/>				
2109-RU	<input type="checkbox"/>	Tensile test steel round specimens <b>unmachined specimens</b>	IV/2021	4 weeks	
2109-RWM	Standard samples: <input type="checkbox"/>	Tensile test steel (round) at elevated temperature <b>machined specimens</b>	IV/2021	4 weeks	2109-RWM: 450 €* 2109-RWU: 350 €* 2109-RWM and 2109-RWU: total 700 €*
	Alternate samples: <input type="checkbox"/>				
2109-RWU	<input type="checkbox"/>	Tensile test steel (round) at elevated temperature <b>unmachined specimens</b>	IV/2021	4 weeks	
2110FM	<input type="checkbox"/>	Tensile test steel flat specimens, 1-3 mm <b>machined specimens</b>	IV/2021	4 weeks	2110FM: 330 €* 2110FU: 285 €* 2110FM and 2110FU: total 550 €*
2110FU	<input type="checkbox"/>	Tensile test steel flat specimens, 1-3 mm <b>unmachined specimens</b>	IV/2021	4 weeks	
2111-LM	<input type="checkbox"/>	Charpy impact test low level <b>machined specimens</b>	IV/2021	4 weeks	1 level: total 310 €* 2 levels: total 490 €* 3 levels: total 630 €* 4 levels: total 760 €*
2111-MM	<input type="checkbox"/>	Charpy impact test average level <b>machined specimens</b>			
2111-HM	<input type="checkbox"/>	Charpy impact test high level <b>machined specimens</b>			
2111-SM	<input type="checkbox"/>	Charpy impact test super high level <b>machined specimens</b>			

\* Prices for Germany excl. VAT, other countries: Delivery and duty costs will be added to participation fee, see [www.ifep.eu](http://www.ifep.eu)

**Continuation on the next page.  
Please submit pages 6 and 7 for a binding order.**

### Registration proficiency tests metal 2021: part 2

No.	please mark	Proficiency test	Expected Start (quarter/2021)	Return of the results	Participation fee
2111-LU	<input type="checkbox"/>	Charpy impact test low level <b>unmachined specimens</b>	IV/2021	4 weeks	1 level: total 250 €* 2 levels: total 400 €* 3 levels: total 525 €* 4 levels: total 660 €* 4 levels: total 660 €* 4 levels: total 660 €*
2111-MU	<input type="checkbox"/>	Charpy impact test average level <b>unmachined specimens</b>			
2111-HU	<input type="checkbox"/>	Charpy impact test high level <b>unmachined specimens</b>			
2111-SU	<input type="checkbox"/>	Charpy impact test super high level <b>unmachined specimens</b>			
2113	<input type="checkbox"/>	Metallography, image analysis	III/2021	4 weeks	255 €* 275 €* 275 €* 2140-HS or 2141-SD: total 310 €* 2140-HS and 2141-SD: total 550 €* 2140-HS and 2141-SD: total 550 €*
2114-a	<input type="checkbox"/>	Metallography, sample preparation	III/2021	4 weeks	275 €* 275 €* 2140-HS or 2141-SD: total 310 €* 2140-HS and 2141-SD: total 550 €* 2140-HS and 2141-SD: total 550 €*
2114-b	<input type="checkbox"/>	Metallography, depth of decarburization	III/2021	1 week	275 €* 2140-HS or 2141-SD: total 310 €* 2140-HS and 2141-SD: total 550 €* 2140-HS and 2141-SD: total 550 €*
2140-HS	<input type="checkbox"/>	High voltage test ISO 2746	III/2021	1 week	2140-HS or 2141-SD: total 310 €* 2140-HS and 2141-SD: total 550 €* 2140-HS and 2141-SD: total 550 €*
2141-SD	<input type="checkbox"/>	Coating thickness ISO 2178	III/2021	1 week	2140-HS and 2141-SD: total 550 €*

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The costs will be invoiced by Institut für Eignungsprüfung IfEP GmbH **in advance**. The total invoice amount is to be paid two weeks after receipt of the invoice, independent of the shipment of the specimens.

The organiser will charge 25 % of the fee if the registration is cancelled four weeks prior to the start of the proficiency test. For cancellations later than this, the full amount will be charged.

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

**Please submit pages 6 and 7 for a binding order.**