


<b>Prüfbericht - Nr.: 21136762 003</b>			Seite 1 von 10 Page 1 of 10		
<i>Test Report No.:</i>					
<b>Auftraggeber:</b> <i>Client:</i>		Weldas Europe B.V. Blankenweg 18, 4612 RC Bergen op Zoom, Holland			
<b>Gegenstand der Prüfung:</b> <i>Test item:</i>		Protective gloves for welders			
<b>Bezeichnung:</b> <i>Identification:</i>		10-2755 10-2150	<b>Serien-Nr.:</b> <i>Serial No.:</i>		
<b>Wareneingangs-Nr.:</b> <i>Receipt No.:</i>		744-801173/02 / 1038681	<b>Eingangsdatum:</b> 09.06.2008 <i>Date of receipt:</i> 30.07.2008		
<b>Prüfört:</b> <i>Testing location:</i>		<b>TRPS / Prüfstelle für Produktsicherheit Leipzig</b> Maximilianallee 4, 04129 Leipzig, Fon/Fax: +49 341 600 369-0 / -10			
<b>Prüfgrundlage:</b> <i>Test specification:</i>		DIN EN 12477/09.2005, DIN EN 420/2003			
<b>Prüfergebnis:</b> <i>Test Result:</i>		<b>Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).</b> <i>The test item passed the test specification(s).</i>			
<b>Prüflaboratorium:</b> <i>Testing Laboratory:</i>		<b>TRPS / Prüfstelle für Produktsicherheit Leipzig</b>			
<b>geprüft/ tested by:</b>			<b>kontrolliert/ reviewed by:</b>		
07.07.2009	Albrecht / Expert		07.07.2009	Knappe / General Manager Leipzig	
<b>Datum</b> <i>Date</i>	<b>Name/Stellung</b> <i>Name/Position</i>	<b>Unterschrift</b> <i>Signature</i>	<b>Datum</b> <i>Date</i>	<b>Name/Stellung</b> <i>Name/Position</i>	<b>Unterschrift</b> <i>Signature</i>
<b>Sonstiges/ Other Aspects:</b>					
Article 10-2150	mechanical performance levels 2 1 2 2 thermal performance levels 4 2 3 X 4 X				
Article 10-2755	mechanical performance levels 2 1 4 3 thermal performance levels 4 3 3 X 4 X				
replaced test report dated on 26.08.2008					
<b>Abkürzungen:</b>		<i>P(ass) = entspricht Prüfgrundlage</i>		<b>Abbreviations:</b>	
<i>F(ail) = entspricht nicht Prüfgrundlage</i>		<i>N/A = nicht anwendbar</i>		<i>P(ass) = passed</i>	
<i>N/T = nicht getestet</i>				<i>F(ail) = failed</i>	
				<i>N/A = not applicable</i>	
				<i>N/T = not tested</i>	
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b>					
<i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>					

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## Used measuring instruments

Measuring	Device-Number Inventory-Number Serial-Number	next Calibration
chrom-VI-content, Azo dyestuff		accredited subcontractor

Test results of accredited laboratories of competent subcontractor are marked with /\*.

## Material description/Picture

### Protective gloves for welders

		<p><b>Article 10-2150</b></p> <p>glove palm: grain cowhide,  glove back: split cowhide  cuff: split cowhide  lining: cotton</p>
		<p><b>Article 10-2755</b></p> <p>glove palm: grain cowhide with COMFOflex lining  glove back: split deerskin with aluminated PFR rayon  cuff: split cowhide  lining cuff: cotton</p>

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Protective gloves for welders according to DIN EN 12477  
**Article 10-2755**

Parameter	according EN 12477	Requirement	Test result	Remark																	
				P	F	N/A	N/T														
<b>Glove design and construction</b> <b>General</b>	clause 3 EN 420, 4.1	- in foreseeable conditions of use, protection at highest possible level - minimal time for put on/take off - overall not significantly decreased by seams	given				P														
<b>Resistance to water penetration</b>	clause 3 EN 420, 4.2	if required, leather: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>level</th> <th>penetration time [min]</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30</td> </tr> <tr> <td>2</td> <td>60</td> </tr> <tr> <td>3</td> <td>120</td> </tr> <tr> <td>4</td> <td>180</td> </tr> </tbody> </table> textil:	level	penetration time [min]	1	30	2	60	3	120	4	180	-				N/A				
level	penetration time [min]																				
1	30																				
2	60																				
3	120																				
4	180																				
<b>Innocuousness of protective gloves</b> <b>General</b>	clause 3 EN 420, 4.3.1	- protection at use without harm to user - all substances contained which are known to cause allergies are named	given				P														
<b>Determination of pH-value</b>	clause 3 EN 420, 4.3.2	>3,5 and < 9,5	palm 4,9 back given /* test report 21128415 002 art. 2385 cuff 3,8				P														
<b>Determination of chromium (VI) content</b>  <b>Azo dye stuff</b>	clause 3 EN 420, 4.3.3	under detection limit 3 mg/kg  under detection limit 30 mg/kg	/* TRPU AZ 43534, AZ 45553 <b>chromium content:</b> cuff split leather < 3 mg/kg yellow grain leather < 3 mg/kg grey split leather < 3mg/kg  /* test report 21128415 002 <b>Azo dye stuff:</b> yellow grain leather: < 30mg/kg COMFOflex < 30mg/kg				P														
<b>Determination of extractable protein content</b>	clause 3 EN 420, 4.3.4	natural rubber: Lowry- test method: under detection limit	-				N/A														
<b>Cleaning</b>	clause 3 EN 420, 4.4	no negative influence of performance levels after cleaning	information at user instruction				P														
<b>Comfort and efficiency</b> <b>Sizing</b>	clause 3 EN 420, 5.1.2	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Hand size</th> <th>minimum length [mm]</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>300</td> </tr> <tr> <td>7</td> <td>310</td> </tr> <tr> <td>8</td> <td>320</td> </tr> <tr> <td>9</td> <td>330</td> </tr> <tr> <td>10</td> <td>340</td> </tr> <tr> <td>11</td> <td>350</td> </tr> </tbody> </table>	Hand size	minimum length [mm]	6	300	7	310	8	320	9	330	10	340	11	350	Size Length [mm] L (9) 360 XL (10) 365				P
Hand size	minimum length [mm]																				
6	300																				
7	310																				
8	320																				
9	330																				
10	340																				
11	350																				
Special applications	clause 5.1.3	fit for special purpose (clearly stated in instruction for use)  type of protective gloves  after each test, the inside material have to be checked of damage	given				P														

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Parameter	according EN 12477	Requirement	Test result	Remark			
				P	F	N/A	N/T
Water vapour transmission Water vapour absorption	EN 420, clause 5.3	if practicable, water vapour transmission allowed if required: WVT: $\geq 5 \text{ mg}/(\text{cm}^2\cdot\text{h})$ . if protection level inhibits or excludes water vapour transmission, effect of perspiration is reduced if required: WVA: $\geq 8 \text{ mg}/\text{cm}^2$ for 8 h	glove palm: WVT 8,0 mg/cm <sup>2</sup> WVA 14,5 mg/cm <sup>2</sup>  glove back: given /* test report 21128415 002 art. 2085				P
<b>Abrasion resistance</b>	clause 5.1	type A at least level 2 type B at least level 1  performance level      abrasion (cycles) 1                              100 2                              500 3                              2000 4                              8000	breakthrough at about [cycles] palm: grain leather 2000 500 2000 500 back: aluminized rayon and split leather /* test report 21128415 002 art. 2085 deer split leather 500-2000 aluminized fabric 100-500 lining < 100  lowest value for classification: 500				P  perf. level 2 type A+B
<b>Blade cut resistance</b>	clause 5.2	type A at least level 1 type B at least level 1  performance level      blade cut resist. (index) 1                              1,2 2                              2,5 3                              5,0 4                              10,0 5                              20,0	palm: grain leather with foam lining index i: 2,2 2,2 2,0 2,4 2,1 1,6 2,2 2,0 2,1 2,2 index I: 2,1 2,1  lowest Index I for classification: 2,1				P  perf. level 1 type A+B
<b>Tear resistance</b>	clause 5.3	type A at least level 2 type B at least level 1  performance level      Tear [N] 1                              10 2                              25 3                              50 4                              75	several values palm: grain leather 122 87 /* test report 21128415 002 art. 2750  lowest value for classification: 87				P  perf. level 4 type A+B
<b>Puncture resistance</b>	clause 5.4	type A at least level 2 type B at least level 1  performance level      puncture [N] 1                              20 2                              60 3                              100 4                              150	several values palm: grain leather with foam lining 113 134 121 404  lowest value for classification: 113				P  perf. level 3 type A+B

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Parameter	according EN 12477	Requirement	Test result	Remark																		
				P	F	N/A	N/T															
<b>Burning behaviour</b>	clause 5.5	type A at least level 3 type B at least level 2  Performance after flame time [s] after glow time [s]  <table border="1"> <tr><td>1</td><td>&lt; 20</td><td>no requirem.</td></tr> <tr><td>2</td><td>&lt; 10</td><td>&lt; 120</td></tr> <tr><td>3</td><td>&lt; 3</td><td>&lt; 25</td></tr> <tr><td>4</td><td>&lt; 2</td><td>&lt; 5</td></tr> </table> The seams at heated area do not open after burning time of 15 s.	1	< 20	no requirem.	2	< 10	< 120	3	< 3	< 25	4	< 2	< 5	after 3 s and 15 s:  after flame time: 0 after glow time: 0 no seams opening no melting	P						
1	< 20	no requirem.																				
2	< 10	< 120																				
3	< 3	< 25																				
4	< 2	< 5																				
<b>Contact Heat</b>	clause 5.6	type A at least level 1 type B at least level 1  performance- contact temp. threshold level <table border="1"> <tr><td></td><td><math>T_C</math> [°C]</td><td>time <math>t_t</math> [s]</td></tr> <tr><td>1</td><td>100</td><td>≥ 15</td></tr> <tr><td>2</td><td>250</td><td>≥ 15</td></tr> <tr><td>3</td><td>350</td><td>≥ 15</td></tr> <tr><td>4</td><td>500</td><td>≥ 15</td></tr> </table>		$T_C$ [°C]	time $t_t$ [s]	1	100	≥ 15	2	250	≥ 15	3	350	≥ 15	4	500	≥ 15	palm: grain leather with lining  at temperature 350 °C  threshold time: 18 s	P			perf. level 3 type A+B
	$T_C$ [°C]	time $t_t$ [s]																				
1	100	≥ 15																				
2	250	≥ 15																				
3	350	≥ 15																				
4	500	≥ 15																				
<b>Convective Heat</b>	clause 5.7	type A at least level 2 type B at least level 0  Performance level Heat transfer index HTI <table border="1"> <tr><td>1</td><td>≥ 4</td></tr> <tr><td>2</td><td>≥ 7</td></tr> <tr><td>3</td><td>≥ 10</td></tr> <tr><td>4</td><td>≥ 18</td></tr> </table>	1	≥ 4	2	≥ 7	3	≥ 10	4	≥ 18	heat transfer index:  palm: grain leather with foam lining 20  /* test report 21128415 002 art. 2385 back: aluminized rayon with COMFOflex and split leather 14 cuff: split leather with lining 14	P			perf. level 3 type A+B							
1	≥ 4																					
2	≥ 7																					
3	≥ 10																					
4	≥ 18																					
<b>Impact of molten metal drops</b>	clause. 5.8	type A at least level 3 type B at least level 2  performance level number of drops <table border="1"> <tr><td>1</td><td>≥ 10</td></tr> <tr><td>2</td><td>≥ 15</td></tr> <tr><td>3</td><td>≥ 25</td></tr> <tr><td>4</td><td>≥ 35</td></tr> </table>	1	≥ 10	2	≥ 15	3	≥ 25	4	≥ 35	/* test report 21128415 002 art. 2385  back: > 40	P			perf. level 4 type A+B							
1	≥ 10																					
2	≥ 15																					
3	≥ 25																					
4	≥ 35																					
<b>Dexterity</b>	clause 5.9	type A at least level 1 type B at least level 4  Performance smallest diameter of level pin <table border="1"> <tr><td>1</td><td>11</td></tr> <tr><td>2</td><td>9,5</td></tr> <tr><td>3</td><td>8</td></tr> <tr><td>4</td><td>6,5</td></tr> <tr><td>5</td><td>5</td></tr> </table>	1	11	2	9,5	3	8	4	6,5	5	5	pin: 6,5 mm	P			perf. level 4 type A+B					
1	11																					
2	9,5																					
3	8																					
4	6,5																					
5	5																					
<b>Optional Electrostatic properties (vertical resistance)</b>	clause 3.4 and EN 1149-2	vertical resistance between inner and outer side > 10 <sup>5</sup> Ω	-				N/A															

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Parameter	according EN 12477	Requirement	Test result	Remark			
				P	F	N/A	N/T
<b>Marking</b>	clause 6	<ul style="list-style-type: none"> <li>- name, trade mark or other means of identification of the manufacturer</li> <li>- article identification</li> <li>- size</li> <li>- if required, best use before</li> <li>- EN 12477:2005</li> <li>- figures:</li> </ul> Protective gloves for welders: 	given  given given not required given given				P
<b>Information of the manufacturer</b>	clause 7	<ul style="list-style-type: none"> <li>- name, trade mark or other means of identification of the manufacturer</li> <li>- glove type , name or code for identification</li> <li>- size</li> <li>- if the expected shelf-life of the gloves is reduced by aging, the expiration date have to be added</li> <li>- the pictograms</li> <li>- if protection is only given, for part of gloves, information have to be added</li> <li>- possible problems</li> <li>- instruction for use for gloves and also for use with combination of other PPE</li> <li>- care instructions</li> <li>- information about penetration of UV-radiation and behaviour at arc welding</li> </ul>	given  given  given information given   given not applicable   named given   only written given				P