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<i>Test Report No.:</i>		<i>Page 1 of 11</i>	
Auftraggeber: <i>Client:</i>	Weldas Europe B.V. Blankenweg 18, 4612 RC Bergen op Zoom, Holland		
Gegenstand der Prüfung: <i>Test item:</i>	Protective gloves for welders		
Bezeichnung: <i>Identification:</i>	10-2655 10-2644	Serien-Nr.: <i>Serial No.:</i>	-
Wareneingangs-Nr.: <i>Receipt No.:</i>	556-10-0071/01 / 1051997	Eingangsdatum: <i>Date of receipt:</i>	22.12.2009
Prüfört: <i>Testing location:</i>	TRLP / Prüfstelle für Textilien/PSA Leipzig Maximilianallee 4, 04129 Leipzig, Fon/Fax: +49 341 600 369-0 / -10		
Prüfgrundlage: <i>Test specification:</i>	DIN EN 12477:2005 (EN 12477:2001 + A1:2005) DIN EN 420/2003		
Prüfergebnis: <i>Test Result:</i>	Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). <i>The test item passed the test specification(s).</i>		
Prüflaboratorium: <i>Testing Laboratory:</i>	TRLP / Prüfstelle für Textilien/PSA Leipzig		
geprüft/ tested by:	kontrolliert/ reviewed by:		
08.02.2010	 Albrecht / Sachverständige	08.02.2010	 Baier / Sachverständige
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>
			Name/Stellung <i>Name/Position</i>
			Unterschrift <i>Signature</i>
Sonstiges/ Other Aspects:			
Article 10-2655	Type A+B	Performance levels:	mechanical 4 1 4 4 thermal 4 2 3 X 4 X
Article 10-2644	Type A+B	Performance levels:	mechanical 2 1 4 3 thermal 4 1 2 X 4 X
Abkürzungen:	<i>P(ass) = entspricht Prüfgrundlage</i>	Abbreviations:	<i>P(ass) = passed</i>
	<i>F(ail) = entspricht nicht Prüfgrundlage</i>		<i>F(ail) = failed</i>
	<i>N/A = nicht anwendbar</i>		<i>N/A = not applicable</i>
	<i>N/T = nicht getestet</i>		<i>N/T = not tested</i>
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.			
<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
pH value	7440146	08/2010
chrom-VI-content, Azo dyestuff		chemical laboratory
water vapour permeability	7440175	02/2010
abrasion	7440134	09/2010
cut resistance	7440107	03/2010
tear resistance	7440191	03/2010
puncture resistance	7440192	03/2010
burning behaviour	7440106	01/2011
contact heat	7440128	04/2010
convective heat	7440129	06/2010
dexterity	7440197	11/2010
impact of molten metal drops	-	accredited subcontractor

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

Material description/Picture

Protective gloves
Art. 10-2655

		<p>Material construction:</p> <p>Palm: grain Bison leather, thickness 1,5-1,8mm</p> <p>Back: grain Bison leather with COMFOflex lining</p> <p>Cuff: Split cow leather, green lining, woven textile, green</p>
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Test results

Protective gloves for welders according to DIN EN 12477

Parameter	according EN 12477	Requirement	Test result	Remark																									
				P	F	N/A	N/T																						
Glove design and construction General	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																						
Resistance to water penetration	clause 3 EN 420, 4.2	if required, leather: <table border="1"> <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																												
Innocuousness of protective gloves General	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 /* AZ 64439				P																						
Determination of pH-value	clause 3 EN 420, 4.3.2	>3,5 and < 9,5	bison leather 3,52 Comfoflex 5,78 cuff 4,35				P																						
Determination of chromium (VI) content	clause 3 EN 420, 4.3.3	< 3 mg/kg	/* AZ 64439 bison leather < 2 mg/kg cow split leather < 2 mg/kg				P P																						
Dimethylfumarat	home methode	< 0,1 mg/kg (according to 2009/251/EG)	< 0,05 mg/kg				P																						
Azo dye stuff leather textile	DIN EN ISO 17234 14362-1	< 30 mg/kg (according to 1907/2006/EG)	cow leather green < 30 mg/kg textile of cuff < 30 mg/kg comfoflex < 30 mg/kg				P P P																						
Determination of extractable protein content	clause 3 EN 420, 4.3.4	natural rubber: Lowry- test method: under detection limit	-				N/A																						
Cleaning	clause 3 EN 420, 4.4	no negative influence of performance levels after cleaning	-				N/A																						
Comfort and efficiency Sizing	clause 3 EN 420, 5.1.2	<table border="1"> <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	<table border="1"> <thead> <tr> <th>Size</th> <th>Length [mm]</th> </tr> </thead> <tbody> <tr> <td>M</td> <td>370</td> </tr> <tr> <td>L</td> <td>370</td> </tr> <tr> <td>XL</td> <td>370</td> </tr> </tbody> </table>	Size	Length [mm]	M	370	L	370	XL	370				P
Hand size	minimum length [mm]																												
6	300																												
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Size	Length [mm]																												
M	370																												
L	370																												
XL	370																												
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	- type A+B no damage				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: $\geq 5 \text{ mg}/(\text{cm}^2\text{h})$. 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	palm: WVT 11,02 mg/cm ² WVA 15,62 mg/cm ² back: WVT 8,09 mg/cm ² WVA 17,50 mg/cm ²				P
Abrasion resistance	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	bison leather breakthrough at about [cycles] > 8000 > 8000 > 8000 > 8000 lowest value for classification: > 8000				P perf. level 4 type A+B
Blade cut resistance	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	glove palm: index i: 2,7 3,2 2,8 2,4 2,1 2,6 2,0 2,4 2,0 2,3 index I: 2,3 2,6 lowest Index I for classification: 2,3				perf. level 1 type A+B
Tear resistance	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	bison leather: several values [N] 87 121 158 157 lowest value for classification: 87				P perf. level 4 type A+B
Puncture resistance	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	bison leather: several values [N] 184 184 195 194 lowest value for classification: 184				P perf. level 4 type A+B

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Parameter	according EN 12477	Requirement	Test result	Remark			
				P	F	N/A	N/T
Marking	clause 6	<ul style="list-style-type: none"> - name, trade mark or other means of identification of the manufacturer - article identification - size - if required, best use before - EN 12477:2005 - figures: Protective gloves for welders: 	Weldas 10-2655 M - given given				P
Information of the manufacturer	clause 7	<ul style="list-style-type: none"> - name, trade mark or other means of identification of the manufacturer - glove type , name or code for identification - size - if the expected shelf-life of the gloves is reduced by aging, the expiration date have to be added - the pictograms - if protection is only given, for part of gloves, information have to be added - possible problems - instruction for use for gloves and also for use with combination of other PPE - care label - information about penetration of UV-radiation and behaviour at arc welding 	Weldas 10-2655 M-XL n/a given protective gloves described n/a described given				P

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Material description/Picture

Protective gloves
Art. 10-2644



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Test results

Protective gloves for welders according to DIN EN 12477

Parameter	according EN 12477	Requirement	Test result	Remark																									
				P	F	N/A	N/T																						
Glove design and construction General	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																						
Resistance to water penetration	clause 3 EN 420, 4.2	if required, leather: <table border="1"> <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												
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Innocuousness of protective gloves General	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 /* AZ 64439																										
Determination of pH-value	clause 3 EN 420, 4.3.2	>3,5 and < 9,5	bison leather 3,52 cow leather 4,35				P																						
Determination of chromium (VI) content	clause 3 EN 420, 4.3.3	< 3 mg/kg	bison leather < 2 mg/kg cow split leather < 2 mg/kg				P P																						
Dimethylfumarat	home methode	< 0,1 mg/kg (according to 2009/251/EG)	< 0,05 mg/kg				P																						
Azo dye stuff leather textile	DIN EN ISO 17234 14362-1	< 30 mg/kg (according to 1907/2006/EG)	cow leather green < 30 mg/kg -				P																						
Determination of extractable protein content	clause 3 EN 420, 4.3.4	natural rubber: Lowry- test method: under detection limit	-				N/A																						
Cleaning	clause 3 EN 420, 4.4	no negative influence of performance levels after cleaning	-				N/A																						
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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	- type A+B no damage				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: ≥ 5 mg/ (cm ² h). if protection level inhibits or excludes water vapour transmission, effect of perspiration is reduced if required: WVA: ≥ 8 mg/cm ² for 8 h	palm/back WVT 9,08 mg/cm ² h WVA 12,85 mg/cm ²				P
Abrasion resistance	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	bison leather breakthrough between [cycles] 500-2000 500-2000 500-2000 500-2000 lowest value for classification: 500				P perf. level 2 type A+B
Blade cut resistance	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	glove palm: index i: 1,6 1,3 1,4 1,3 1,2 1,6 1,7 1,2 1,2 1,6 index I: 1,4 1,4 lowest Index I for classification: 1,4				perf. level 1 type A+B
Tear resistance	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	bison leather: several values [N] 98 212 114 193 lowest value for classification: 98				P perf. level 4 type A+B
Puncture resistance	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	bison leather: several values [N] 125 172 151 137 lowest value for classification: 125				P perf. level 3 type A+B

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Parameter	according EN 12477	Requirement	Test result	Remark			
				P	F	N/A	NT
Marking	clause 6	<ul style="list-style-type: none"> - name, trade mark or other means of identification of the manufacturer - article identification - size - if required, best use before - EN 12477:2003 - figures: Protective gloves for welders: 	Weldas 10-2644 M - given given				P
Information of the manufacturer	clause 7	<ul style="list-style-type: none"> - name, trade mark or other means of identification of the manufacturer - glove type , name or code for identification - size - if the expected shelf-life of the gloves is reduced by aging, the expiration date have to be added - the pictograms - if protection is only given, for part of gloves, information have to be added - possible problems - instruction for use for gloves and also for use with combination of other PPE - care label - information about penetration of UV-radiation and behaviour at arc welding 	Weldas 10-2644 M-XL n/a given protective gloves described n/a described given				P