

Prüfbericht - Nr.: 21128415 002

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Test Report No.:

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Auftraggeber: Weldas Europe B.V.
Client: De Poort 77, 4411 PB Rilland, Netherland

Gegenstand der Prüfung: Protective gloves for welders
Test item:

Bezeichnung: siehe Sonstiges
Identification: see other aspects
Serien-Nr.: 1027544
Serial No.:

Wareneingangs-Nr.: 744-700380/01
Receipt No.:
Eingangsdatum: 15.02.2007
Date of receipt:

Prüfört: TRPS / Prüfstelle für Produktsicherheit Leipzig
Testing location: Maximilianallee 4, 04129 Leipzig, Fon/Fax: +49 341 600 369-0 / -10

Prüfgrundlage: DIN EN 12477/09.2005, DIN EN 420/2003
Test specification:

Prüfergebnis: Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).
Test Result: The test item passed the test specification(s).

Prüflaboratorium: TRPS / Prüfstelle für Produktsicherheit Leipzig
Testing Laboratory:

| | | | | | |
|----------------------------|----------------------|---|-----------------------------------|---|--------------------------------|
| geprüft/ tested by: | | | kontrolliert/ reviewed by: | | |
| 11.04.2007 | Albrecht/Expert |  | 11.04.2007 |  | Knappe/General Manager Leipzig |
| Datum | Name/Stellung | Unterschrift | Datum | Name/Stellung | Unterschrift |
| <i>Date</i> | <i>Name/Position</i> | <i>Signature</i> | <i>Date</i> | <i>Name/Position</i> | <i>Signature</i> |

Sonstiges/ Other Aspects:

| | | | | | | |
|--------------|---------|---------------------|------------|------|---------|--------|
| Art. 10-2000 | Typ A | Performance levels: | mechanical | 4133 | thermal | 413X3X |
| Art. 10-2900 | Typ A | | | 4233 | | 423X4X |
| Art. 10-2385 | Typ A | | | 4133 | | 41344X |
| Art. 10-2850 | Typ A/B | | | 3133 | | 313X4X |
| Art. 10-2750 | Typ A/B | | | 4143 | | 423X4X |
| Art. 10-2087 | Typ A/B | | | 4133 | | 413X3X |
| Art. 10-2178 | Typ A | | | 4133 | | 413X3X |
| Art. 10-2392 | Typ A/B | | | 3124 | | 413X4X |
| Art. 10-2101 | Typ A/B | | | 3134 | | 413X4X |
| Art. 10-1003 | Typ A/B | | | 3121 | | 413X4X |
| Art. 10-1005 | Typ A/B | | | 2122 | | 412X4X |
| Art. 10-1007 | Typ B | | | 2111 | | 412X4X |
| Art. 10-1009 | Typ B | | | 2111 | | 412X4X |
| Art. 10-2304 | Typ A/B | | | 2133 | | 413X4X |

| | | | |
|---------------------|--|-----------------------|-----------------------------|
| Abkürzungen: | P(ass) = entspricht Prüfgrundlage | Abbreviations: | P(ass) = passed |
| | F(ail) = entspricht nicht Prüfgrundlage | | F(ail) = failed |
| | N/A = nicht anwendbar | | N/A = not applicable |
| | N/T = nicht getestet | | N/T = not tested |

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.

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.

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Used measuring instruments

| Measuring | Device-Number Inventory-Number Serial-Number | next Calibration |
|------------------------------------|--|----------------------------|
| Chromium VI content, Azo dye stuff | | accredited test laboratory |
| Sizing | 744 00 161 | 05/2008 |
| Dexterity | 744 00 197 | 05/2008 |

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

already certified articles:

10-2000 Test report M 9811321 E01, 744-800242, dtd. 22.05.1998,
 10-2087
 10-2178

10-2900 Test report M 9910845 E01, 744-900170, dtd. 07.04.1999
 10-2392

10-2385 Test report M 9910393 E01, 744-800515, dtd. 04.03.1999
 10-2850
 10-2750
 10-2101
 10-1003
 10-1005
 10-1007
 10-1009
 10-2304

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Art. 10-2304 Deersosoft

material:

palm deer grain leather
 back deer grain leather
 lining without
 cuff split cowhide leather



| 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" style="display: inline-table; vertical-align: middle;"><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 | | | P | | | | | | | | | | | | | | | | | | | | | | | | | |
| Determination of pH-value | clause 3 EN 420, 4.3.2 | >3,5 and < 9,5 | given (see M 9910393 E01) | | | P | | | | | | | | | | | | | | | | | | | | | | | | | |
| Determination of chromium (VI) content Azo dye stuff | clause 3 EN 420, 4.3.3 | under detection limit 3 mg/kg under detection limit 30 mg/kg | /* AZ 24740 deer leather < 3 mg/kg cow split leather < 3 mg/kg cow split leather < 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 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comfort and efficiency Sizing | clause 3 EN 420, 5.1.2 | <table border="1" style="display: inline-table; vertical-align: middle;"><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" style="display: inline-table; vertical-align: middle;"><thead><tr><th>Size</th><th>Length [mm]</th></tr></thead><tbody><tr><td>M/8</td><td>320</td></tr><tr><td>L/9</td><td>330</td></tr><tr><td>XL/10</td><td>340</td></tr><tr><td>XXL/11</td><td>350</td></tr></tbody></table> | Size | Length [mm] | M/8 | 320 | L/9 | 330 | XL/10 | 340 | XXL/11 | 350 | | | P | |
| Hand size | minimum length [mm] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 310 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 320 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 330 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 340 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 350 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Size | Length [mm] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M/8 | 320 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L/9 | 330 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XL/10 | 340 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XXL/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 | type A and B given | | | P | | | | | | | | | | | | | | | | | | | | | | | | | |

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Art. 10-2304 Deersosoft

| 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, leather: 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, leather: WVA: $\geq 8 \text{ mg}/\text{cm}^2$ for 8 h | given | | | | P | | | | | | | | | | | | |
| Abrasion resistance | clause 5.1 | type A at least level 2 type B at least level 1 <table border="1"> <thead> <tr> <th>performance level</th> <th>abrasion (cycles)</th> </tr> </thead> <tbody> <tr><td>1</td><td>100</td></tr> <tr><td>2</td><td>500</td></tr> <tr><td>3</td><td>2000</td></tr> <tr><td>4</td><td>8000</td></tr> </tbody> </table> | performance level | abrasion (cycles) | 1 | 100 | 2 | 500 | 3 | 2000 | 4 | 8000 | /* 21128415 001 breakthrough at about [cycles] deer leather 500-2000 lowest value for classification: > 500 | | | | P perf. level 2 | | |
| performance level | abrasion (cycles) | | | | | | | | | | | | | | | | | | |
| 1 | 100 | | | | | | | | | | | | | | | | | | |
| 2 | 500 | | | | | | | | | | | | | | | | | | |
| 3 | 2000 | | | | | | | | | | | | | | | | | | |
| 4 | 8000 | | | | | | | | | | | | | | | | | | |
| Blade cut resistance | clause 5.2 | type A at least level 1 type B at least level 1 <table border="1"> <thead> <tr> <th>performance level</th> <th>blade cut resist. (index)</th> </tr> </thead> <tbody> <tr><td>1</td><td>1,2</td></tr> <tr><td>2</td><td>2,5</td></tr> <tr><td>3</td><td>5,0</td></tr> <tr><td>4</td><td>10,0</td></tr> <tr><td>5</td><td>20,0</td></tr> </tbody> </table> | performance level | blade cut resist. (index) | 1 | 1,2 | 2 | 2,5 | 3 | 5,0 | 4 | 10,0 | 5 | 20,0 | /* 21128415 001 index i: 1,5 1,7 1,6 1,6 1,5 index I: 1,6 lowest Index I for classification: 1,6 | | | | P perf. level 1 |
| performance level | blade cut resist. (index) | | | | | | | | | | | | | | | | | | |
| 1 | 1,2 | | | | | | | | | | | | | | | | | | |
| 2 | 2,5 | | | | | | | | | | | | | | | | | | |
| 3 | 5,0 | | | | | | | | | | | | | | | | | | |
| 4 | 10,0 | | | | | | | | | | | | | | | | | | |
| 5 | 20,0 | | | | | | | | | | | | | | | | | | |
| Tear resistance | clause 5.3 | type A at least level 2 type B at least level 1 <table border="1"> <thead> <tr> <th>performance level</th> <th>Tear [N]</th> </tr> </thead> <tbody> <tr><td>1</td><td>10</td></tr> <tr><td>2</td><td>25</td></tr> <tr><td>3</td><td>50</td></tr> <tr><td>4</td><td>75</td></tr> </tbody> </table> | performance level | Tear [N] | 1 | 10 | 2 | 25 | 3 | 50 | 4 | 75 | /* 21128415 001 several values deer leather 73 62 lowest value for classification: 62 | | | | P perf. level 3 | | |
| performance level | Tear [N] | | | | | | | | | | | | | | | | | | |
| 1 | 10 | | | | | | | | | | | | | | | | | | |
| 2 | 25 | | | | | | | | | | | | | | | | | | |
| 3 | 50 | | | | | | | | | | | | | | | | | | |
| 4 | 75 | | | | | | | | | | | | | | | | | | |
| Puncture resistance | clause 5.4 | type A at least level 2 type B at least level 1 <table border="1"> <thead> <tr> <th>performance level</th> <th>puncture [N]</th> </tr> </thead> <tbody> <tr><td>1</td><td>20</td></tr> <tr><td>2</td><td>60</td></tr> <tr><td>3</td><td>100</td></tr> <tr><td>4</td><td>150</td></tr> </tbody> </table> | performance level | puncture [N] | 1 | 20 | 2 | 60 | 3 | 100 | 4 | 150 | /* 21128415 001 several values 166 136 lowest value for classification: 136 | | | | P perf. level 3 | | |
| performance level | puncture [N] | | | | | | | | | | | | | | | | | | |
| 1 | 20 | | | | | | | | | | | | | | | | | | |
| 2 | 60 | | | | | | | | | | | | | | | | | | |
| 3 | 100 | | | | | | | | | | | | | | | | | | |
| 4 | 150 | | | | | | | | | | | | | | | | | | |

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Art. 10-2304 Deersosoft

| Parameter | according EN 12477 | Requirement | Test result | Remark | | | |
|--|--------------------------|---|---|--------|---|-----|------------------------|
| | | | | P | F | N/A | N/T |
| Burning behaviour | clause 5.5 | type A at least level 2 type B at least level 1 Performance after flame time [s] after glow time [s] <hr/> 1 < 20 no requirements 2 < 10 < 120 3 < 3 < 25 4 < 2 < 5 The seams at heated area do not open after burning time of 15 s. | /* 21128415 001 after flame time 2 s after glow time 1 s no seams opening no melted dropping no melting at inner layer no whole formation | | | | P perf. level 4 |
| Contact Heat | clause 5.6 | type A at least level 1 type B at least level 1 performance- contact temp. threshold level <hr/> T _c [°C] t _t [s] 1 100 ≥ 15 2 250 ≥ 15 3 350 ≥ 15 4 500 ≥ 15 | /* 21128415 001 glove palm at 100 °C 19 s at 250 °C 11 s | | | | P perf. level 1 |
| Convective Heat | clause 5.7 | type A at least level 2 type B at least level 0 Performance level Heat transfer index HTI <hr/> 1 ≥ 4 2 ≥ 7 3 ≥ 10 4 ≥ 18 | /* 21128415 001 glove back 11 s cuff 11 s | | | | P perf. level 3 |
| Impact of molten metal drops | clause. 5.8 | type A at least level 3 type B at least level 2 performance level number of drops <hr/> 1 ≥ 10 2 ≥ 15 3 ≥ 25 4 ≥ 35 | > 40 (see M 9910393 E01) | | | | P perf. level 4 |
| Dexterity | clause 5.9 | type A at least level 1 type B at least level 4 Performance smallest diameter of level pin <hr/> 1 11 2 9,5 3 8 4 6,5 5 5 | pin:5 mm | | | | P perf. level 5 |
| Optional Electrostatic properties (vertical resistance) | clause 3.4 and EN 1149-2 | vertical resistance between inner and outer side > 10 ⁵ Ω | - | | | | N/T |

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Marking and Information according to EN 420/EN 12477 of gloves

| 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 12477:2003 - figures: Protective gloves for welders:  | 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 - testing institute | given given given not applicable given given given given given given given | | | | P |