



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017049 rev. 0**

Our order: 639027
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVIJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: SB307033

Quantity: 186

PRODUCT

Brand: ESAB
Description: OK 67.60 2.5x300mm 1/4 VP
Item number: **67602520L0**

CLASSIFICATIONS

EN ISO 3581-A E 23 12 L R 3 2
SFA/AWS A5.4 E309L-17
CSA W48 E309L-17
Werkstoffnummer 1.4332

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard:
Auxiliary:
Condition:

TENSILE

<u>Rp0.2</u>	<u>Rm</u>	<u>A5</u>
470 MPa	580 MPa	32 %

IMPACT

<u>Temp</u>	<u>KV</u>
+20 °C	50 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

All weld metal

Auxiliary:

C	0.03%
Si	0.73%
Mn	0.7%
P	0.017%
S	0.008%
Cr	23.9%
Ni	12.6%
Mo	0.15%
Cu	0.06%
FN WRC-92	14

COMMENTS

Product supplied under a QA Programme fulfilling the EN ISO 9001 standard.

This certificate is produced electronically and is valid without signature.

Please refer any queries to:

Esab Nederland BV - P.O. Box 2236, 3800 CE Amersfoort, Nederland

Validation - Chemical Analysis

Ellen Björgran

Quality Manager

Validation - Others

Tapio Huhtala

Product Manager



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017050 rev. 0**

Our order: 639027
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVIJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: PV3223722460

Quantity: 1

PRODUCT

Brand: ESAB
Description: OK Autrod 309LSi 1.2mm 15kg
Item number: **1651129820**

CLASSIFICATIONS

EN ISO 14343-A G 23 12 L Si
SFA/AWS A5.9 ER309LSi
Werkstoffnummer ~1.4332

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard:
Auxiliary:
Condition:

TENSILE

<u>Rp0.2</u>	<u>Rm</u>	<u>A4-A5</u>
440 MPa	600 MPa	41 %

IMPACT

<u>Temp</u>	<u>KV</u>
-110 °C	90 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.015%
Si	0.90%
Mn	1.90%
P	0.017%
S	0.009%
Cr	23.1%
Ni	13.1%
Mo	0.11%
Cu	0.11%
N	0.07%
Ferrite FN	11

COMMENTS

Product supplied under a QA Programme fulfilling the EN ISO 9001 standard.

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Please refer any queries to:

Esab Nederland BV - P.O. Box 2236, 3800 CE Amersfoort, Nederland

Validation - Chemical Analysis

Milan Macek

Quality Manager

Validation - Others

Mikael Mimer

Product Manager



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017051 rev. 0**

Our order: 639027
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVIJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: PV3243722463

Quantity: 4

PRODUCT

Brand: ESAB
Description: OK Autrod 309LSi 1.2mm 15kg
Item number: **1651129820**

CLASSIFICATIONS

EN ISO 14343-A G 23 12 L Si
SFA/AWS A5.9 ER309LSi
Werkstoffnummer ~1.4332

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard:
Auxiliary:
Condition:

TENSILE

<u>Rp0.2</u>	<u>Rm</u>	<u>A4-A5</u>
440 MPa	600 MPa	41 %

IMPACT

<u>Temp</u>	<u>KV</u>
-110 °C	90 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.015%
Si	0.90%
Mn	1.90%
P	0.017%
S	0.009%
Cr	23.1%
Ni	13.1%
Mo	0.11%
Cu	0.11%
N	0.07%
Ferrite FN	11

COMMENTS

Product supplied under a QA Programme fulfilling the EN ISO 9001 standard.

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Please refer any queries to:

Esab Nederland BV - P.O. Box 2236, 3800 CE Amersfoort, Nederland

Validation - Chemical Analysis

Milan Macek

Quality Manager

Validation - Others

Mikael Mimer

Product Manager



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017052 rev. 0**

Our order: 639027
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVIJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: PV324818252

Quantity: 1

PRODUCT

Brand: ESAB
Description: OK Autrod 12.64 1.0mm 18kg
Item number: **1264107710**

CLASSIFICATIONS

EN ISO 636-A W 46 3 W4Si1
EN ISO 636-A W4Si1
EN ISO 14341-A G 4Si1
EN ISO 14341-A G 42 2 C1 4Si1
EN ISO 14341-A G 46 3 M21 4Si1
SFA/AWS A5.18 ER70S-6

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard: EN
Auxiliary: M21
Condition:

TENSILE

<u>ReL</u>	<u>Rm</u>	<u>A4-A5</u>
525 MPa	595 MPa	26 %

IMPACT

<u>Temp</u>	<u>KV</u>
-30 °C	70 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.08%
Si	0.88%
Mn	1.60%
P	0.010%
S	0.006%
Cr	0.04%
Ni	0.01%
Mo	< 0.01%
Cu	0.10%
V	< 0.01%
Al	< 0.01%
Ti+Zr	0.01%

COMMENTS

Product supplied under a QA Programme fulfilling the EN ISO 9001 standard.

This certificate is produced electronically and is valid without signature.

Please refer any queries to:

Esab Nederland BV - P.O. Box 2236, 3800 CE Amersfoort, Nederland

Validation - Chemical Analysis

Milan Macek

Quality Manager

Validation - Others

Per-Erik Andersson

Product Manager



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017053 rev. 0**

Our order: 639027
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
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POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: RB1313054

Quantity: 3

PRODUCT

Brand: ESAB
Description: OK Autrod 5754 1.0mm 7kg
Item number: **1813109870**

CLASSIFICATIONS

EN ISO 18273 S Al 5754 (AlMg3)

CHEMICAL COMPOSITION

**Actual results
acc to EN 10204 - 3.1**

Wire/strip

Auxiliary:

Si	0.06%
Mn	0.2%
Cr	< 0.01%
Cu	< 0.01%
Ti	0.01%
Al	94.0%
Be	< 0.0001%
Fe	0.10%
Mg	3.4%
Zn	< 0.01%
Mn+Cr	< 0.21%

MECHANICAL PROPERTIES

**Typical data
acc to EN 10204 - 2.2**

Standard:
Auxiliary:
Condition:

TENSILE

<u>Rp0.2</u>	<u>Rm</u>	<u>A4-A5</u>
110 MPa	230 MPa	23 %

COMMENTS

Product supplied under a QA Programme fulfilling the EN ISO 9001 standard.

This certificate is produced electronically and is valid without signature.

Please refer any queries to:

Esab Nederland BV - P.O. Box 2236, 3800 CE Amersfoort, Nederland

Validation - Chemical Analysis

William Hamilton

Quality Assurance Manager

Validation - Others

Michael Spiess

Product Manager



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017054 rev. 0**

Our order: 629199
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVIJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: PV324056363X

Quantity: 56

PRODUCT

Brand: ESAB
Description: OK Autrod 12.56 1.0mm 18kg
Item number: **1256107710**

CLASSIFICATIONS

EN ISO 14341-A G 3Si1
EN ISO 14341-A G 38 2 C1 3Si1
EN ISO 14341-A G 42 3 M21 3Si1

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard: EN
Auxiliary: M21
Condition:

TENSILE

<u>ReL</u>	<u>Rm</u>	<u>A4-A5</u>
440 MPa	530 MPa	26 %

IMPACT

<u>Temp</u>	<u>KV</u>
-30 °C	70 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.09%
Si	0.93%
Mn	1.50%
P	0.019%
S	0.014%
Cr	0.04%
Ni	0.02%
Mo	< 0.01%
Cu	0.11%
V	< 0.01%
Al	< 0.01%
Ti+Zr	0.01%

COMMENTS

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Please refer any queries to:

Esab Nederland BV - P.O. Box 2236 , 3800 CE Amersfoort , Nederland

Validation - Chemical Analysis

Milan Macek

Quality Manager

Validation - Others

Per-Erik Andersson

Product Manager



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017055 rev. 0**

Our order: 639027
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVIJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: PV312050910

Quantity: 1

PRODUCT

Brand: ESAB
Description: OK Tigrod 12.60 3.2x1000mm 5kg
Item number: **126032R150**

CLASSIFICATIONS

EN ISO 636-A W38 3 W2Si
EN ISO 636-A W2Si
SFA/AWS A5.18 ER70S-3

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard: EN
Auxiliary: I1
Condition:

TENSILE

<u>ReL</u>	<u>Rm</u>	<u>A4-A5</u>
420 MPa	515 MPa	26 %

IMPACT

<u>Temp</u>	<u>KV</u>
-30 °C	90 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.09%
Si	0.55%
Mn	1.03%
P	0.016%
S	0.016%
Cr	0.05%
Ni	0.02%
Mo	< 0.01%
Cu	0.08%
V	< 0.01%
Al	0.001%
Al	< 0.01%
Ti+Zr	0.01%

COMMENTS

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Validation - Chemical Analysis

Milan Macek

Quality Manager

Validation - Others

Per-Erik Andersson

Product Manager



INSPECTION CERTIFICATE (3.1) - Chemical analysis TEST REPORT (2.2) - Mechanical properties

Date: 2013-07-02

Certificate number: **EC23017056 rev. 0**

Our order: 639027
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130613

Your order: **Various**
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVIJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4900 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Lidhr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: F811C3B200

Quantity: 62.5

PRODUCT

Brand: ESAB
Description: Shield-Bright 309L X-tra 1.2mm
Item number: **35CX12248V**

CLASSIFICATIONS

SFA/AWS A5.22	E309LT0-1
SFA/AWS A5.22	E309LT0-4
JIS Z 3323	YF 309LC - KR
KS D 3612	YF 309LC - KR
EN ISO 17633-A	T 23 12 L R C 3
EN ISO 17633-A	T 23 12 L R M 3

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard:
Auxiliary:
Condition:

TENSILE

<u>Rp0.2</u>	<u>Rm</u>	<u>A5</u>
480 MPa	600 MPa	35 %

IMPACT

<u>Temp</u>	<u>KV</u>
+20 °C	40 J
-110 °C	32 J

COMMENTS

Product supplied under a QA Programme fulfilling the EN ISO 9001 standard.

This certificate is produced electronically and is valid without signature.

Please refer any queries to:

Esab Nederland BV - P.O. Box 2236 , 3800 CE Amersfoort , Nederland

Validation - Chemical Analysis

Christos Skodras

Quality Assurance Manager

Validation - Others

Neil Farrow

Product Manager