



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

Date: 2013-10-28

Certificate number: EC23189622 rev. 0

Our order: 711325
Our reference: Mariette Villieu
Customer number: NLB00152
Customer order date: 20131024

Your order: 20031156742
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: PV34000C0CA0

Quantity: 100

PRODUCT

Brand: ESAB
Description: OK Tigrod 316LSi 2.0x1000 5kg
Item number: 163220R150

CLASSIFICATIONS

EN ISO 14343-A W19 12 3 L Si
SFA/AWS A5.9 ER316LSi
Werkstoffnummer ~1.4430

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.01%
Si	0.90%
Mn	1.7%
P	0.02%
S	0.01%
Cr	18.2%
Ni	11.8%
Mo	2.6%
Cu	0.04%
N	0.051%
Ferrite FN	8

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>
450 MPa	600 MPa	35 %

IMPACT

<u>Temp</u>	<u>KV</u>
+20 °C	175 J
-110 °C	150 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

Milan Macek

Quality Manager

Validation - Others

Mikael Mimer

Product Manager



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

Date: 2013-10-28

Certificate number: EC23189623 rev. 0

Our order: 711325
Our reference: Mariette Villieu
Customer number: NLB00152
Customer order date: 20131024

Your order: 20031156742
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: SB335080

Quantity: 222

PRODUCT

Brand: ESAB
Description: OK 61.30 2.5x300mm 1/4 VP
Item number: 61302520L0

CLASSIFICATIONS

EN ISO 3581-A E 19 9 L R 1 2
SFA/AWS A5.4 E308L-17
CSA W48 E308L-17
Werkstoffnummer 1.4316

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

All weld metal

Auxiliary:

C	0.02%
Si	0.71%
Mn	0.6%
P	0.020%
S	0.008%
Cr	18.8%
Ni	10.1%
Mo	0.08%
Cu	0.07%

FN WRC-92 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>
430 MPa	580 MPa	45 %

IMPACT

<u>Temp</u>	<u>KV</u>
+20 °C	70 J
-60 °C	49 J

COMMENTS

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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: 2013-10-28

Certificate number: EC23189624 rev. 0

Our order: 711325
Our reference: Mariette Villieu
Customer number: NLB00152
Customer order date: 20131024

Your order: 20031156742
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.
Lichr. 400
KUPER 2
8447 GK HEERENVEEN

DELIVERY

Lot number: PV335054609B

Quantity: 7

PRODUCT

Brand: ESAB
Description: OK AristRod 13.09 1.2mm 18kg
Item number: 1B09126910

CLASSIFICATIONS

EN ISO 14341-A G 2Mo
EN ISO 14341-A G 38 0 C1 2Mo
EN ISO 14341-A G 46 2 M21 2Mo
EN ISO 21952-A G MoSi
EN ISO 21952-B G 1M3
SFA/AWS A5.28 ER80S-G

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard: EN
Auxiliary: M21
Condition:

TENSILE

ReL	Rm	A4-A5
515 MPa	610 MPa	26 %

IMPACT

Temp	KV
-20 °C	100 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.09%
Si	0.51%
Mn	0.98%
P	0.015%
S	0.018%
Cr	0.04%
Ni	0.02%
Mo	0.40%
Cu	0.04%
V	< 0.01%
Al	< 0.01%
Ti+Zr	< 0.01%

COMMENTS

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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: 2013-10-28

Certificate number: EC23189625 rev. 0

Our order: 711325
Our reference: Mariette Villieu
Customer number: NLE00152
Customer order date: 20131024

Your order: 20031156742
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4800 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Licht. 400
KUPER 2
8447 GK HEEFENVEEN

DELIVERY

Lot number: PV2152721360

Quantity: 5

PRODUCT

Brand: ESAB
Description: OK Autrod 16.95 1.2mm 15kg
Item number: 1695129820

CLASSIFICATIONS

EN ISO 14343-A G188 Mh
Verkstoffsnummer ~1.4370

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.08%
Si	0.9%
Mn	7.0%
P	0.03%
S	0.02%
Cr	18.6%
N	7.6%
Mo	0.1%
Cu	0.2%

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard

Auxiliary:

Condition:

TENSILE

<u>R_{0.2}</u>	<u>R_m</u>	<u>A4-A5</u>
450 MPa	630 MPa	41 %

IMPACT

<u>Temp</u>	<u>KV</u>
-60 °C	56 J

COMMENTS

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

Validation - Chemical Analysis

Milan Macek

Quality Manager

Validation - Others

Mikael Mirer

Product Manager



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

Date: 2013-10-28

Certificate number: EC23189626 rev. 0

Our order: 711325
Our reference: Mariette Villieu
Customer number: NLE00152
Customer order date: 20131024

Your order: 20031156742
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4800 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Licht. 400
KUPER 2
8447 GK HEEFENVEEN

DELIVERY

Lot number: SF308137

Quantity: 840

PRODUCT

Brand: ESAB
Description: OK53.05 4.0 X 360 1/2 VP
Item number: 53054034G0

CLASSIFICATIONS

SFA/AWS A5.1 E7016
EN ISO 2560-A E42 4 B 22 H10

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

All weld metal

Auxiliary:

C	0.08%
Si	0.53%
Mn	1.00%
P	0.015%
S	0.005%
Cr	0.03%
N	0.02%
Mo	<0.1%
Nb	<0.01%
Cu	<0.1%
V	0.01%

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard

Auxiliary:

Condition

TENSILE

<u>ReL</u>	<u>Rm</u>	<u>A4-A5</u>
470 MPa	540 MPa	28 %

IMPACT

<u>Temp</u>	<u>KV</u>
-51 °C	60 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

Pel Dranka

Quality Assurance Manager

Validation - Others

Tony Dray

Product Manager



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

Date: 2013-10-28

Certificate number: EC23189627 rev. 0

Our order: 711325
Our reference: Mariette Villieu
Customer number: NLE00152
Customer order date: 20131024

Your order: 20031156742
Your reference:
Your fax number:
Your e-mail:

Invoice address
ZEVJ B.V. LASAULEC CENTRAAL HVEEN
POSTBUS 447
4800 AK OOSTERHOUT

Receiver of certificate

Delivery address
LASAULEC CENTRAAL B.V.
Licht. 400
KUPER 2
8447 GK HEEFENVEEN

DELIVERY

Lot number: SF317178

Quantity: 420

PRODUCT

Brand: ESAB
Description: OK53.05 4.0 X 360 1/2 VP
Item number: 53054034G0

CLASSIFICATIONS

SFA/AWS A5.1 E7016
EN ISO 2560-A E42 4 B 22 H10

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

All weld metal

Auxiliary:

C	0.07%
Si	0.63%
Mn	0.90%
P	0.016%
S	0.004%
Cr	0.04%
N	0.02%
Mo	<0.1%
Nb	0.01%
Cu	<0.1%
V	0.01%

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard

Auxiliary:

Condition:

TENSILE

<u>ReL</u>	<u>Rm</u>	<u>A4-A5</u>
470 MPa	540 MPa	28 %

IMPACT

<u>Temp</u>	<u>KV</u>
-51 °C	60 J

COMMENTS

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Validation - Chemical Analysis

Pál Dranka

Quality Assurance Manager

Validation - Others

Tony Dray

Product Manager