



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

Date: 2013-07-23

Certificate number: EC23048355 rev. 0

Our order: 651717
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130718

Your order: 20031138509
Your reference:
Your fax number:
Your e-mail:

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

Receiver of certificate

Delivery address
975 Lasaulec ADC
Kuper 2
8447 GK Heerenveen

DELIVERY

Lot number: FB1320131

Quantity: 10

PRODUCT

Brand: ESAB
Description: OK Autrod 5183 1.2mm 7kg
Item number: 1816129870

CLASSIFICATIONS

SFA/AWS A5.10 EP5183
EN ISO 18273 SAI 5183 (AlMg4,5Mn0,7(A))

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

Si	0.04%
Mn	0.55%
Cr	0.05%
Cu	<0.01%
Ti	0.02%
Al	94.0%
Be	<0.0001%
Fe	0.08%
Mg	4.6%
Zn	<0.01%

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>
140 MPa	290 MPa	25 %

IMPACT

<u>Temp</u>	<u>KV</u>
+20 °C	30 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

William Hamilton

Quality Assurance Manager

Validation - Others

Michael Spiess

Product Manager



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

Date: 2013-07-23

Certificate number: EC23048357 rev. 0

Our order: 651717
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130718

Your order: 20031138509
Your reference:
Your fax number:
Your e-mail:

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

Receiver of certificate

Delivery address
975 Lasaulec ADC
Kuper 2
8447 GK Heerenveen

DELIVERY

Lot number: PV32700C5MCO

Quantity: 150

PRODUCT

Brand: ESAB
Description: OK Tigrod 316LSi 2.4x1000 5kg
Item number: 163224R150

CLASSIFICATIONS

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

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard:
Auxiliary:
Condition:

TENSILE

<u>R_{p0.2}</u>	<u>R_m</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

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.02%
Si	0.99%
Mn	1.7%
P	0.02%
S	0.01%
Cr	18.2%
N	11.9%
Mo	2.6%
Cu	0.08%
N	0.055%
Ferrite FN	7

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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: 2013-07-23

Certificate number: EC23048358 rev. 0

Our order: 651717
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130718

Your order: 20031138509
Your reference:
Your fax number:
Your e-mail:

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

Receiver of certificate

Delivery address
975 Lasaulec ADC
Kuper 2
8447 GK Heerenveen

DELIVERY

Lot number: PV328824875

Quantity: 4

PRODUCT

Brand: ESAB
Description: OK Autrod 12.51 1.0mm250kg
Item number: 1251109320

CLASSIFICATIONS

EN ISO 14341-A G3S1
EN ISO 14341-A G38 2 C1 3S1
EN ISO 14341-A G42 3 M21 3S1
SFA/AWS A5.18 ER70S-6
CAN/CSA-ISO 14341 B-G49A3 C G6

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard: EN
Auxiliary: M21 (EN 439)
Condition:

TENSILE

ReL Rm A4-A5
470 MPa 560 MPa 26 %

IMPACT

Temp KV
-30 °C 70 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.08%
Si	0.89%
Mn	1.50%
P	0.014%
S	0.013%
Cr	0.03%
N	0.01%
Mo	<0.01%
Cu	0.10%
V	<0.01%
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: 2013-07-23

Certificate number: ~~EC23048359~~ rev. 0

Our order: 651717
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130718

Your order: 20031138509
Your reference:
Your fax number:
Your e-mail:

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

Receiver of certificate

Delivery address
975 Lasaulec ADC
Kuper 2
8447 GK Heerenveen

DELIVERY

Lot number: PV321819024

Quantity: 5

PRODUCT

Brand: ESAB
Description: OK Tigrod 12.64 2.0x1000mm5kg
Item number: 126420R150

CLASSIFICATIONS

EN ISO 636-A W463 W4S1
EN ISO 636-A W4S1
SFA/AWS A5.18 ER70S-6

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>
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	0.09%
Si	0.90%
Mn	1.64%
P	0.006%
S	0.010%
Cr	0.03%
N	0.01%
Mo	<0.01%
Cu	0.05%
V	<0.01%
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: 2013-07-23

Certificate number: EC23048360 rev. 0

Our order: 651717
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130718

Your order: 20031138509
Your reference:
Your fax number:
Your e-mail:

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

Receiver of certificate

Delivery address
975 Lasaulec ADC
Kuper 2
8447 GK Heerenveen

DELIVERY

Lot number: PV329057527B

Quantity: 56

PRODUCT

Brand: ESAB
Description: OK AristoRod 12.50 1.0mm 18kg
Item number: 1A50106910

CLASSIFICATIONS

EN ISO 14341-A G3S1
EN ISO 14341-A G38 3 C1 3S1
EN ISO 14341-A G42 4 M21 3S1
SFA/AWS A5.18 ER70S-6
CAN/CSA-ISO 14341 B-G49A3 C G6
JIS Z 3312 YGW12 (C1), (items ending with H)

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>
470 MPa	560 MPa	26 %

IMPACT

<u>Temp</u>	<u>KV</u>
-30 °C	70 J
-40 °C	60 J

COMMENTS

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.08%
Si	0.85%
Mn	1.48%
P	0.015%
S	0.019%
Cr	0.07%
N	0.02%
Mo	<0.01%
Cu	0.05%
V	<0.01%
Al	0.001%
Ti+Zr	0.01%

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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: 2013-07-23

Certificate number: EC23048361 rev. 0

Our order: 651717
Our reference: Nicole Javaux France
Customer number: NLB00152
Customer order date: 20130718

Your order: 20031138509
Your reference:
Your fax number:
Your e-mail:

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

Receiver of certificate

Delivery address
975 Lasaulec ADC
Kuper 2
8447 GK Heerenveen

DELIVERY

Lot number: PV328824981

Quantity: 5

PRODUCT

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

CLASSIFICATIONS

EN ISO 636-A W46.3 W4S1
EN ISO 636-A W4S1
EN ISO 14341-A G4S1
EN ISO 14341-A G42.2 C1 4S1
EN ISO 14341-A G46.3 M21 4S1
SFA/AWS A5.18 ER70S-6

MECHANICAL PROPERTIES

Typical data
acc to EN 10204 - 2.2

Standard: EN
Auxiliary: M21
Condition:

TENSILE

ReL Rm A4-A5
525 MPa 595 MPa 26 %

IMPACT

Temp KV
-30 °C 70 J

CHEMICAL COMPOSITION

Actual results
acc to EN 10204 - 3.1

Wire/strip

Auxiliary:

C	0.08%
Si	0.95%
Mn	1.70%
P	0.008%
S	0.008%
Cr	0.03%
N	0.02%
Mo	<0.01%
Cu	0.10%
V	<0.01%
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