



# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAW00002JA**  
Revision No:  
**2**

**This is to certify:**  
**that the Electrode**

with trade name  
**ZULFI E 6010**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV rules for classification – Ships**  
**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                          |
|--------------------------|------------------------------------------|
| <b>Grade</b>             | <b>2</b>                                 |
| <b>Current</b>           | <b>AC,DC(+)</b>                          |
| <b>Approved diameter</b> | <b>2.5 mm - 5.0 mm</b>                   |
| <b>Positions</b>         | <b>All, including vertical downwards</b> |
| <b>Remarks</b>           | <b>---</b>                               |

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2026-07-29**

This Certificate is valid until **2031-04-30**.

DNV local unit: **Jeddah**

Approval Engineer: **Christine Löll**

for **DNV**



Digitally Signed By:  
**Ludger Hachmöller**  
Location: **DNV Hamburg,**  
**Germany**

Any significant change in design or construction may render this Certificate invalid.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAW00002JJ**  
Revision No:  
**2**

**This is to certify:**  
**that the Electrode**

with trade name  
**ZULFI E 6013**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV rules for classification – Ships**  
**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                          |
|--------------------------|------------------------------------------|
| <b>Grade</b>             | <b>2</b>                                 |
| <b>Current</b>           | <b>AC,DC(+)</b>                          |
| <b>Approved diameter</b> | <b>2.5 mm - 5.0 mm</b>                   |
| <b>Positions</b>         | <b>All, including vertical downwards</b> |
| <b>Remarks</b>           | <b>---</b>                               |

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2026-07-29**

This Certificate is valid until **2031-04-30**.

DNV local unit: **Jeddah**

Approval Engineer: **Christine Löll**

for **DNV**



Digitally Signed By:  
**Ludger Hachmöller**  
Location: **DNV Hamburg,**  
**Germany**

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# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAW00002JG**  
Revision No:  
**2**

**This is to certify:**  
**that the Electrode**

with trade name  
**ZULFI E 7018**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV rules for classification – Ships**  
**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                       |
|--------------------------|---------------------------------------|
| <b>Grade</b>             | <b>5 Y40H5</b>                        |
| <b>Current</b>           | <b>AC,DC(±)</b>                       |
| <b>Approved diameter</b> | <b>2.5 mm - 5.0 mm</b>                |
| <b>Positions</b>         | <b>All, except vertical downwards</b> |
| <b>Remarks</b>           | <b>---</b>                            |

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2026-07-29**

This Certificate is valid until **2031-04-30**.

DNV local unit: **Jeddah**

Approval Engineer: **Christine Löll**

for **DNV**



Digitally Signed By:  
**Ludger Hachmöller**  
Location: **DNV Hamburg,**  
**Germany**

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# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAW00002JE**  
Revision No:  
**2**

**This is to certify:**  
**that the Electrode**

with trade name  
**ZULFI E 7018-1**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV rules for classification – Ships**  
**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                       |
|--------------------------|---------------------------------------|
| <b>Grade</b>             | <b>4 Y40H5</b>                        |
| <b>Current</b>           | <b>AC,DC (±)</b>                      |
| <b>Approved diameter</b> | <b>2.5 mm - 5.0 mm</b>                |
| <b>Positions</b>         | <b>All, except vertical downwards</b> |
| <b>Remarks</b>           | <b>---</b>                            |

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2026-07-29**

This Certificate is valid until **2031-04-30**.

DNV local unit: **Jeddah**

Approval Engineer: **Christine Löll**

for **DNV**



Digitally Signed By:  
**Ludger Hachmöller**  
Location: **DNV Hamburg,**  
**Germany**

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# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAW00002JF**  
Revision No:  
**2**

**This is to certify:**  
**that the Electrode**

with trade name  
**ZULFI E 8018-C1**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV rules for classification – Ships**  
**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                       |
|--------------------------|---------------------------------------|
| <b>Grade</b>             | <b>4 Y40H5</b>                        |
| <b>Current</b>           | <b>DC(+)</b>                          |
| <b>Approved diameter</b> | <b>2.5 mm - 5.0 mm</b>                |
| <b>Positions</b>         | <b>All, except vertical downwards</b> |
| <b>Remarks</b>           | <b>---</b>                            |

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Issued at **Hamburg** on **2026-07-29**

This Certificate is valid until **2031-04-30**.

DNV local unit: **Jeddah**

Approval Engineer: **Christine Löll**

for **DNV**



Digitally Signed By:  
**Ludger Hachmöller**  
Location: **DNV Hamburg,**  
**Germany**

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E316L-16**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV class programme DNV-CP-0338 – Type approval – Type approval scheme**

with this approval

|                   |                                                                |
|-------------------|----------------------------------------------------------------|
| Grade             | *                                                              |
| Current           | AC, DC(+)                                                      |
| Approved diameter | 2.5 mm - 4.0 mm                                                |
| Positions         | All, except vertical downwards                                 |
| Remarks           | *) Classification AWS A5.4 E316L-16<br>Also for fillet welding |

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Dau, Gabi  
Location: DNV Hamburg, Germany  
Signing Date: 2022-06-20, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E308L-16**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV class programme DNV-CP-0338 – Type approval – Type approval scheme**

with this approval

|                   |                                                                |
|-------------------|----------------------------------------------------------------|
| Grade             | *                                                              |
| Current           | AC, DC(+)                                                      |
| Approved diameter | 2.5 mm - 4.0 mm                                                |
| Positions         | All, except vertical downwards                                 |
| Remarks           | *) Classification AWS A5.4 E308L-16<br>Also for fillet welding |

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Dau, Gabi  
Location: DNV Hamburg, Germany  
Signing Date: 2022-06-20, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E309L-16**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV class programme DNV-CP-0338 – Type approval – Type approval scheme**

with this approval

|                          |                                                                              |
|--------------------------|------------------------------------------------------------------------------|
| <b>Grade</b>             | <b>*</b>                                                                     |
| <b>Current</b>           | <b>AC, DC(+)</b>                                                             |
| <b>Approved diameter</b> | <b>2.5 mm - 4.0 mm</b>                                                       |
| <b>Positions</b>         | <b>All, except vertical downwards</b>                                        |
| <b>Remarks</b>           | <b>*) Classification AWS A5.4 E309L-16</b><br><b>Also for fillet welding</b> |

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Dau, Gabi  
Location: DNV Hamburg, Germany  
Signing Date: 2022-06-20, on behalf of

**Thorsten Lohmann**  
**Head of Section**

Any significant change in design or construction may render this Certificate invalid.

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E310-15**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV class programme DNV-CP-0338 – Type approval – Type approval scheme**

with this approval

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Grade             | *                                                             |
| Current           | AC, DC(+)                                                     |
| Approved diameter | 2.5 mm - 4.0 mm                                               |
| Positions         | All, except vertical downwards                                |
| Remarks           | *) Classification AWS A5.4 E310-15<br>Also for fillet welding |

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Dau, Gabi  
Location: DNV Hamburg, Germany  
Signing Date: 2022-06-20, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAW000030U**  
Revision No:  
**1**

## This is to certify:

That the Electrode

with trade name  
**ZULFI E 7010-G**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                   |                                                                  |
|-------------------|------------------------------------------------------------------|
| Grade             | 2 Y                                                              |
| Current           | AC/DC(+)                                                         |
| Approved diameter | 2.5 mm - 5.0 mm                                                  |
| Positions         | All incl. vertical downwards                                     |
| Remarks           | AWS SFA-5.5 E7010-G.<br>For welding only normal strength steels. |

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Hamburg** on **2022-06-30**

This Certificate is valid until **2027-06-30**.

DNV local station: **Doha**

Approval Engineer: **Gabi Dau**



for **DNV**

Digitally Signed By: Wenning, Martin

Location: DNV Hamburg, Germany

Signing Date: 05.07.2022, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E7010-P1**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV rules for classification – Ships**

**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                          |
|--------------------------|------------------------------------------|
| <b>Grade</b>             | <b>3</b>                                 |
| <b>Current</b>           | <b>AC, DC(+)</b>                         |
| <b>Approved diameter</b> | <b>2.6 mm - 5.0 mm</b>                   |
| <b>Positions</b>         | <b>All, including vertical downwards</b> |
| <b>Remarks</b>           | <b>Also for fillet welding</b>           |

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Dau, Gabi

Location: DNV Hamburg, Germany

Signing Date: 2022-06-20, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAW000030T**  
Revision No:  
**1**

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E 7016-1**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                   |                                                  |
|-------------------|--------------------------------------------------|
| Grade             | 4 Y40H5                                          |
| Current           | AC / DC(+)                                       |
| Approved diameter | 2.5 mm - 5.0 mm                                  |
| Positions         | All except vertical downwards                    |
| Remarks           | AWS SFA-5.1 E7016-1.<br>Also for fillet welding. |

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2022-06-30**

This Certificate is valid until **2027-06-30**.

DNV local station: **Doha**

Approval Engineer: **Gabi Dau**



for **DNV**

Digitally Signed By: Wenning, Martin

Location: DNV Hamburg, Germany

Signing Date: 05.07.2022 , on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E7018 H4R**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV rules for classification – Ships**  
**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                   |                                                                                                                                                               |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grade             | 4 Y40H5                                                                                                                                                       |
| Current           | AC, DC(+)                                                                                                                                                     |
| Approved diameter | 2.6 mm - 5.0 mm                                                                                                                                               |
| Positions         | All, except vertical downwards                                                                                                                                |
| Remarks           | Also for fillet welding<br>Also acc. to AWS/SFA 5.1 for grade E7018 H4R.<br>Absorbed moisture test 80% relative humidity at 29° C<br>for a period of 12 hours |

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**  
Digitally Signed By: Dau, Gabi  
Location: DNV Hamburg, Germany  
Signing Date: 2022-06-21, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAW000030S**  
Revision No:  
**2**

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E 7018-1 H4R**

Manufacturer

**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with

**DNV rules for classification – Ships**

**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                                                                                                                                                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Grade</b>             | <b>4 Y40H5</b>                                                                                                                                                                                                                      |
| <b>Current</b>           | <b>AC/DC(+)</b>                                                                                                                                                                                                                     |
| <b>Approved diameter</b> | <b>2.5 mm - 5.0 mm</b>                                                                                                                                                                                                              |
| <b>Positions</b>         | <b>All, except vertical downwards</b>                                                                                                                                                                                               |
| <b>Remarks</b>           | <b>Also for grade E7018-1 H4R acc. to AWS/SFA 5.1. Absorbed moisture test (R) are carried out after exposure of the electrode to an environment of 29°C and 80% RH for a period of 12 hrs and moisture test found satisfactory.</b> |

**Also for fillet welding.**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2023-07-31**

This Certificate is valid until **2027-06-30**.

DNV local unit: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Wenning, Martin

Location: DNV Hamburg, Germany

Signing Date: 01.08.2023 , on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI E8018-C3 H4R**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV class programme DNV-CP-0338 – Type approval – Type approval scheme**

with this approval

|                   |                                                                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grade             | *                                                                                                                                                        |
| Current           | AC, DC(+)                                                                                                                                                |
| Approved diameter | 2.6 mm - 5.0 mm                                                                                                                                          |
| Positions         | All, except vertical downwards                                                                                                                           |
| Remarks           | Also for fillet welding<br>*) Classification AWS A5.5: E8018-C3 H4R<br>Absorbed moisture test 80% relative humidity at 29° C<br>For a period of 12 hours |

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Dau, Gabi  
Location: DNV Hamburg, Germany  
Signing Date: 2022-06-21, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Electrode

with trade name  
**ZULFI ENiCrFe-3**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV class programme DNV-CP-0338 – Type approval – Type approval scheme**

with this approval

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Grade             | *                                                   |
| Current           | AC, DC(+)                                           |
| Approved diameter | 2.5 mm - 4.0 mm                                     |
| Positions         | All, except vertical downwards                      |
| Remarks           | *) Classification AWS A5.11/A5.11M: 2018: ENiCrFe-3 |

Issued at **Hamburg** on **2022-06-10**

This Certificate is valid until **2027-06-09**.

DNV local station: **Doha**

Approval Engineer: **Ludger Hachmöller**



for **DNV**

Digitally Signed By: Dau, Gabi  
Location: DNV Hamburg, Germany  
Signing Date: 2022-06-23, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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# TYPE APPROVAL CERTIFICATE

**This is to certify:**

**That the Electrode**

with trade name  
**ZULFI ENiCrMo-3**

Manufacturer  
**Zulfi Welding Electrodes Factory Co Ltd**  
**AL ZULFI, Saudi Arabia**

is found to comply with  
**DNV class programme DNV-CP-0338 – Type approval – Type approval scheme**

with this approval

|                          |                                                            |
|--------------------------|------------------------------------------------------------|
| <b>Grade</b>             | <b>*</b>                                                   |
| <b>Current</b>           | <b>AC, DC(+)</b>                                           |
| <b>Approved diameter</b> | <b>2.5 mm - 4.0 mm</b>                                     |
| <b>Positions</b>         | <b>All, except vertical downwards</b>                      |
| <b>Remarks</b>           | <b>*) Classification AWS A5.11/A5.11M: 2018: ENiCrMo-3</b> |

Issued at **Hamburg** on **2022-06-10**

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