

## OK Flux 10.81

OK Flux 10.81 is een geagglomereerde zure Si- en Mn legerende flux voor het onderpoederdek lassen. Meest geschikt voor toepassingen met hoge opmenging zoals hoeklassen en stompe verbindingen van dunne en halfdikke platen met weinig lasrupsen. De uitstekende laseigenschappen van het zure slaksysteem laten hoge lassnelheden toe in toepassingen als stompverbindingen in dunwandige buizen of hoeklassen waar een mooi lasuiterlijk gecombineerd aan goeie slaklossing en aanvloeiing belangrijk zijn.

| Specificaties  |                                                             |
|----------------|-------------------------------------------------------------|
| Classificaties | EN ISO 14174 : S A AR 1 97 AC                               |
| Goedkeuringen  | CE : EN 13479<br>DB : 51.039.04<br>NAKS/HAKC : RD 03-613-03 |

Goedkeuringen zijn gebaseerd op fabriekslocatie. Neem contact op met ESAB voor meer informatie.

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Slaktype          | Aluminate-rutile                                    |
| Legering Transfer | Very high Silicon and moderately Manganese alloying |
| Dichtheid         | nom: 1.2 kg/dm <sup>3</sup>                         |
| Basiciteits Index | nom: 0.6                                            |

| Fluxverbruik |                        |                       |
|--------------|------------------------|-----------------------|
| Volt         | kg Flux / kg Draad DC+ | kg Flux / kg Draad AC |
| 34 V         | 1.3 kg                 | 1.2 kg                |
| 30 V         | 1.0 kg                 | 0.9 kg                |
| 26 V         | 0.7 kg                 | 0.6 kg                |
| 38 V         | 1.6 kg                 | 1.4 kg                |

Conditionering : Afmeting Ø 4.0 mm , Ampère 580 A , Voortloopsnelheid 55 cm/min

| Normen             |                                         |                            |                    |                    |
|--------------------|-----------------------------------------|----------------------------|--------------------|--------------------|
| Draad              | AWS/EN                                  | EN - Als gelaste           | AWS - Als gelaste  | AWS - PWHT         |
| OK Autrod 12.10    | A5.17:EL12/ 14171-A:S1                  | 14171-A: S 42 A AR S1      | A5.17: F7AZ-EL12   | A5.17: F7PZ-EL12   |
| OK Autrod 12.20    | A5.17:EM12/ 14171-A:S2                  | 14171-A: S 46 0 AR S2      | A5.17: F7A0-EM12   | A5.17: F7PZ-EM12   |
| OK Autrod 12.22    | A5.17:EM12K/ 14171-A:S2Si               | 14171-A: S 50 A AR S2Si    | A5.17: F7AZ-EM12K  | A5.17: F7PZ-EM12K  |
| OK Autrod 12.24    | A5.23:EA2/ 14171-A:S2Mo; 24598-A:S S Mo | 14171-A: S 50 A AR S2Mo    | A5.23: F9AZ-EA2-A4 | A5.23: F9PZ-EA2-A4 |
| OK Autrod 12.30    | 14171-A:S3                              | 14171-A: S 50 0 AR S3      | -                  | -                  |
| OK Autrod 13.10 SC | A5.23:EB2R/ 24598-A:S S CrMo1           | -                          | -                  | A5.23: F9PZ-EB2R-G |
| OK Autrod 13.36    | A5.23:EG/ 14171-A:S2Ni1Cu               | 14171-A: S 50 A AR S2Ni1Cu | A5.23: F9A0-EG-G   | -                  |

| Goedkeuringen      |       |    |    |     |    |     |    |    |
|--------------------|-------|----|----|-----|----|-----|----|----|
| Draad              | VdTÜV | CE | DB | ABS | BV | DNV | GL | LR |
| OK Autrod 12.10    | •     | •  | •  | -   | -  | -   | -  | -  |
| OK Autrod 12.20    | •     | •  | •  | •   | •  | •   | •  | •  |
| OK Autrod 12.22    | -     | •  | -  | -   | -  | -   | -  | -  |
| OK Autrod 12.24    | •     | -  | -  | -   | -  | -   | -  | -  |
| OK Autrod 12.30    | •     | •  | •  | -   | -  | -   | -  | -  |
| OK Autrod 13.10 SC | •     | -  | -  | -   | -  | -   | -  | -  |
| OK Autrod 13.36    | -     | •  | -  | -   | -  | -   | -  | -  |

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| Typische lasmetaalanalyse (%)            |      |     |       |       |     |     |     |     |
|------------------------------------------|------|-----|-------|-------|-----|-----|-----|-----|
| C                                        | Mn   | Si  | S     | P     | Ni  | Cr  | Mo  | Cu  |
| <b>OK Autrod 12.10 AC, 580A, 29V</b>     |      |     |       |       |     |     |     |     |
| 0.07                                     | 1.1  | 0.7 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 12.10 DC+, 580A, 29V</b>    |      |     |       |       |     |     |     |     |
| 0.06                                     | 1.2  | 0.8 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 12.20 DC+, 580A, 29V</b>    |      |     |       |       |     |     |     |     |
| 0.07                                     | 1.5  | 0.8 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 12.20 AC, 580A, 29V</b>     |      |     |       |       |     |     |     |     |
| 0.09                                     | 1.4  | 0.7 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 12.22 AC, 580A, 29V</b>     |      |     |       |       |     |     |     |     |
| 0.09                                     | 1.4  | 0.8 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 12.22 DC+, 580A, 29V</b>    |      |     |       |       |     |     |     |     |
| 0.07                                     | 1.5  | 0.9 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 12.24 AC, 580A, 29V</b>     |      |     |       |       |     |     |     |     |
| 0.09                                     | 1.4  | 0.7 | -     | -     | -   | -   | 0.5 | -   |
| <b>OK Autrod 12.24 DC+, 580A, 29V</b>    |      |     |       |       |     |     |     |     |
| 0.07                                     | 1.5  | 0.8 | -     | -     | -   | -   | 0.5 | -   |
| <b>OK Autrod 12.30 AC, 580A, 29V</b>     |      |     |       |       |     |     |     |     |
| 0.10                                     | 1.7  | 0.6 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 12.30 DC+, 580A, 29V</b>    |      |     |       |       |     |     |     |     |
| 0.08                                     | 1.75 | 0.7 | -     | -     | -   | -   | -   | -   |
| <b>OK Autrod 13.10 SC DC+, 575A, 29V</b> |      |     |       |       |     |     |     |     |
| 0.06                                     | 1.4  | 0.9 | -     | -     | -   | 1.0 | 0.5 | -   |
| <b>OK Autrod 13.10 SC</b>                |      |     |       |       |     |     |     |     |
| -                                        | -    | -   | 0.010 | 0.020 | -   | -   | -   | -   |
| <b>OK Autrod 13.36 AC, 580A, 29V</b>     |      |     |       |       |     |     |     |     |
| 0.09                                     | 1.3  | 0.8 | -     | -     | 0.7 | 0.3 | -   | 0.5 |
| <b>OK Autrod 13.36 DC+, 580A, 29V</b>    |      |     |       |       |     |     |     |     |
| 0.07                                     | 1.4  | 0.9 | -     | -     | 0.7 | 0.3 | -   | 0.5 |

| draad samenstelling       |      |      |      |      |      |      |       |
|---------------------------|------|------|------|------|------|------|-------|
| C                         | Mn   | Si   | Ni   | Cr   | Mo   | Cu   | X-bar |
| <b>OK Autrod 12.10</b>    |      |      |      |      |      |      |       |
| 0.07                      | 0.52 | 0.08 | -    | -    | -    | -    | -     |
| <b>OK Autrod 12.20</b>    |      |      |      |      |      |      |       |
| 0.10                      | 1.06 | 0.07 | -    | -    | -    | -    | -     |
| <b>OK Autrod 12.22</b>    |      |      |      |      |      |      |       |
| 0.09                      | 1.01 | 0.19 | -    | -    | -    | -    | -     |
| <b>OK Autrod 12.24</b>    |      |      |      |      |      |      |       |
| 0.09                      | 1.08 | 0.14 | -    | -    | 0.48 | -    | -     |
| <b>OK Autrod 12.30</b>    |      |      |      |      |      |      |       |
| 0.11                      | 1.61 | 0.13 | -    | -    | -    | -    | -     |
| <b>OK Autrod 13.10 SC</b> |      |      |      |      |      |      |       |
| 0.10                      | 0.83 | 0.12 | -    | 1.21 | 0.49 | -    | 11    |
| <b>OK Autrod 13.36</b>    |      |      |      |      |      |      |       |
| 0.10                      | 0.95 | 0.29 | 0.78 | 0.29 | -    | 0.48 | -     |

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| Typische mechanische eigenschappen |                                    |          |             |      |                                              |
|------------------------------------|------------------------------------|----------|-------------|------|----------------------------------------------|
| Draad                              | Conditionering                     | Rekgrens | Treksterkte | Rek  | Charpy V-groef                               |
| OK Autrod 12.10                    | Zoals gelast EN AC                 | 450 MPa  | 530 MPa     | 25 % | 80 J @ 20 °C<br>40 J @ 0 °C                  |
| OK Autrod 12.10                    | Zoals gelast AWS DC+               | 450 MPa  | 540 MPa     | 25 % | 50 J @ 20 °C<br>30 J @ 0 °C                  |
| OK Autrod 12.20                    | Zoals gelast AWS DC+               | 510 MPa  | 610 MPa     | 25 % | 80 J @ 20 °C<br>60 J @ 0 °C<br>40 J @ -18 °C |
| OK Autrod 12.20                    | Zoals gelast EN AC                 | 500 MPa  | 570 MPa     | 30 % | 90 J @ 20 °C<br>70 J @ 0 °C<br>50 J @ -18 °C |
| OK Autrod 12.22                    | Zoals gelast AWS DC+               | 530 MPa  | 610 MPa     | 24 % | 60 J @ 20 °C                                 |
| OK Autrod 12.22                    | Zoals gelast EN AC                 | 550 MPa  | 640 MPa     | 20 % | 70 J @ 20 °C                                 |
| OK Autrod 12.24                    | Zoals gelast EN AC                 | 650 MPa  | 715 MPa     | 24 % | 80 J @ 20 °C<br>50 J @ 0 °C                  |
| OK Autrod 12.24                    | Zoals gelast AWS DC+               | 565 MPa  | 660 MPa     | 23 % | 65 J @ 20 °C<br>45 J @ 0 °C                  |
| OK Autrod 12.30                    | Zoals gelast EN DC+                | 550 MPa  | 640 MPa     | 25 % | 80 J @ 20 °C<br>60 J @ 0 °C                  |
| OK Autrod 12.30                    | Zoals gelast EN AC                 | 550 MPa  | 620 MPa     | 25 % | 100 J @ 20 °C<br>80 J @ 0 °C                 |
| OK Autrod 13.10 SC                 | PWHT PWHT 575A DC+ 29V (1 hour(s)) | 650 MPa  | 730 MPa     | 22 % | 30 J @ 20 °C                                 |
| OK Autrod 13.36                    | Zoals gelast EN AC                 | 610 MPa  | 680 MPa     | 25 % | 80 J @ 20 °C<br>50 J @ 0 °C<br>40 J @ -20 °C |
| OK Autrod 13.36                    | Zoals gelast AWS DC+               | 570 MPa  | 680 MPa     | 23 % | 55 J @ 20 °C<br>40 J @ 0 °C<br>35 J @ -18 °C |