

## Dual Shield II 81-Ni1 H4

Dual Shield II 81-Ni1 H4 produces diffusible Hydrogen levels of <4mL/100g over a wide range of welding parameters. Applications include petrochemical equipment, bridge fabrication, offshore oil construction, ship fabrication railcar, and heavy machinery.

### Especificaciones

|                        |                                                            |
|------------------------|------------------------------------------------------------|
| <b>Clasificaciones</b> | AWS A5.36 : E81T1-C1A4Ni1-H4<br>AWS A5.29 : E81T1-Ni1CJ-H4 |
| <b>Aprobaciones</b>    | MIL-81T1-NI1-HYC<br>MIL-DTL-24403/1F<br>MIL-E-24403/1D     |

Las aprobaciones se basan en la ubicación de la fábrica. Póngase en contacto con ESAB para obtener más información.

### Propiedades típicas de Tensión

| Condición          | Límite de flujo    | Resistencia a la tracción | Alargamiento | Reducción en el área |
|--------------------|--------------------|---------------------------|--------------|----------------------|
| <b>100% CO2</b>    |                    |                           |              |                      |
| Como queda soldado | 560 MPa ( 81 ksi ) | 615 MPa ( 89 ksi )        | 28 %         | 71 %                 |

### Teste Charpy

| Condición          | Temperatura de prueba | Valor de impacto   |
|--------------------|-----------------------|--------------------|
| <b>100% CO2</b>    |                       |                    |
| Como queda soldado | -40 °C ( -40 °F )     | 92 J ( 68 ft-lb )  |
| Como queda soldado | -29 °C ( -20 °F )     | 101 J ( 75 ft-lb ) |

### % típico de análisis de metal de soldadura

| C               | Mn   | Si   | S     | P     | Ni   |
|-----------------|------|------|-------|-------|------|
| <b>100% CO2</b> |      |      |       |       |      |
| 0.03            | 1.12 | 0.37 | 0.008 | 0.006 | 0.95 |

### Depósito

| Diámetro               | Corriente | Tensión | Velocidad de Alimentación             | Eficiencia | Tipo de Deposición | Dist. TTW                       | Tasa de Deposición          |
|------------------------|-----------|---------|---------------------------------------|------------|--------------------|---------------------------------|-----------------------------|
| <b>100% CO2</b>        |           |         |                                       |            |                    |                                 |                             |
| 1.2 mm<br>( .045 in. ) | 130-200 A | 22-26 V | 381-660 cm/min<br>( 150-260 in./min ) |            | Gama completa      | 9.5-12.7 mm<br>( 3/8-1/2 in. )  |                             |
| 1.4 mm<br>( .052 in. ) | 360 A     | 36 V    | 1143 cm/min<br>( 450 in./min )        | 85 %       |                    |                                 | 6.03 kg/h<br>( 13.3 lbs/h ) |
| 1.4 mm<br>( .052 in. ) | 155 A     | 25 V    | 381 cm/min<br>( 150 in./min )         | 87 %       |                    |                                 | 2 kg/h<br>( 4.4 lbs/h )     |
| 1.2 mm<br>( .045 in. ) | 200-225 A | 24-27 V | 660-965 cm/min<br>( 260-380 in./min ) |            | Gama completa      | 12.7-19 mm<br>( 1/2-3/4 in. )   |                             |
| 1.4 mm<br>( .052 in. ) | 130-220 A | 22-26 V | 279-508 cm/min<br>( 110-200 in./min ) |            | Gama completa      | 12.7-15.9 mm<br>( 1/2-5/8 in. ) |                             |
| 1.6 mm<br>( 1/16 in. ) | 365 A     | 33 V    | 762 cm/min<br>( 300 in./min )         | 86 %       |                    |                                 | 5.58 kg/h<br>( 12.3 lbs/h ) |
| 1.4 mm<br>( .052 in. ) | 245 A     | 28 V    | 635 cm/min<br>( 250 in./min )         | 86 %       |                    |                                 | 3.31 kg/h<br>( 7.3 lbs/h )  |
| 1.6 mm<br>( 1/16 in. ) | 290-350 A | 26-30 V | 559-838 cm/min<br>( 220-330 in./min ) |            | Gama completa      | 19-25.4 mm<br>( 3/4-1 in. )     |                             |

## Dual Shield II 81-Ni1 H4

| Depósito               |           |         |                                        |            |                    |                               |                             |
|------------------------|-----------|---------|----------------------------------------|------------|--------------------|-------------------------------|-----------------------------|
| Díámetro               | Corriente | Tensión | Velocidad de Alimentación              | Eficiencia | Tipo de Deposición | Dist. TTW                     | Tasa de Deposición          |
| 1.6 mm<br>( 1/16 in. ) | 190 A     | 27 V    | 381 cm/min<br>( 150 in./min )          | 87 %       |                    |                               | 2.77 kg/h<br>( 6.1 lbs/h )  |
| 1.4 mm<br>( .052 in. ) | 310 A     | 33 V    | 889 cm/min<br>( 350 in./min )          | 85 %       |                    |                               | 4.63 kg/h<br>( 10.2 lbs/h ) |
| 1.4 mm<br>( .052 in. ) | 280-320 A | 26-31 V | 762-1016 cm/min<br>( 300-400 in./min ) |            | Gama completa      | 19-25.4 mm<br>( 3/4-1 in. )   |                             |
| 1.6 mm<br>( 1/16 in. ) | 300 A     | 30 V    | 635 cm/min<br>( 250 in./min )          | 87 %       |                    |                               | 4.63 kg/h<br>( 10.2 lbs/h ) |
| 1.2 mm<br>( .045 in. ) | 150 A     | 28 V    | 508 cm/min<br>( 200 in./min )          | 86 %       |                    |                               | 1.91 kg/h<br>( 4.2 lbs/h )  |
| 1.2 mm<br>( .045 in. ) | 290 A     | 33 V    | 1270 cm/min<br>( 500 in./min )         | 87 %       |                    |                               | 4.85 kg/h<br>( 10.7 lbs/h ) |
| 1.2 mm<br>( .045 in. ) | 225-265 A | 26-29 V | 965-1321 m/min<br>( 380-520 in./min )  |            | Gama completa      | 19-25.4 mm<br>( 3/4-1 in. )   |                             |
| 1.6 mm<br>( 1/16 in. ) | 185-290 A | 24-28 V | 279-559 cm/min<br>( 110-220 in./min )  |            | Gama completa      | 15.9-25.4 mm<br>( 5/8-1 in. ) |                             |
| 1.2 mm<br>( .045 in. ) | 250 A     | 30 V    | 1016 cm/min<br>( 400 in./min )         | 87 %       |                    |                               | 3.86 kg/h<br>( 8.5 lbs/h )  |
| 1.6 mm<br>( 1/16 in. ) | 410 A     | 33 V    | 889 cm/min<br>( 350 in./min )          | 88 %       |                    |                               | 6.35 kg/h<br>( 14 lbs/h )   |
| 1.4 mm<br>( .052 in. ) | 220-280 A | 25-29 V | 508-762 cm/min<br>( 200-300 in./min )  |            | Gama completa      | 15.9-19 mm<br>( 5/8-3/4 in. ) |                             |
| 1.2 mm<br>( .045 in. ) | 210 A     | 29 V    | 762 cm/min<br>( 300 in./min )          | 86 %       |                    |                               | 2.86 kg/h<br>( 6.3 lbs/h )  |