

# DUAL SHIELD<sup>®</sup> PRIME SEAMLESS CORED WIRE



- 🌐 Dual Shield Prime 71 H4
- 🌐 Dual Shield Prime 71 LT H4
- 🌐 Dual Shield Prime 81Ni1 H4
- 🌐 Dual Shield Prime 81NiM H4

[esab.com/primewire](https://esab.com/primewire)

# EXCELLENT IMPACT TOUGHNESS, BETTER PERFORMANCE.

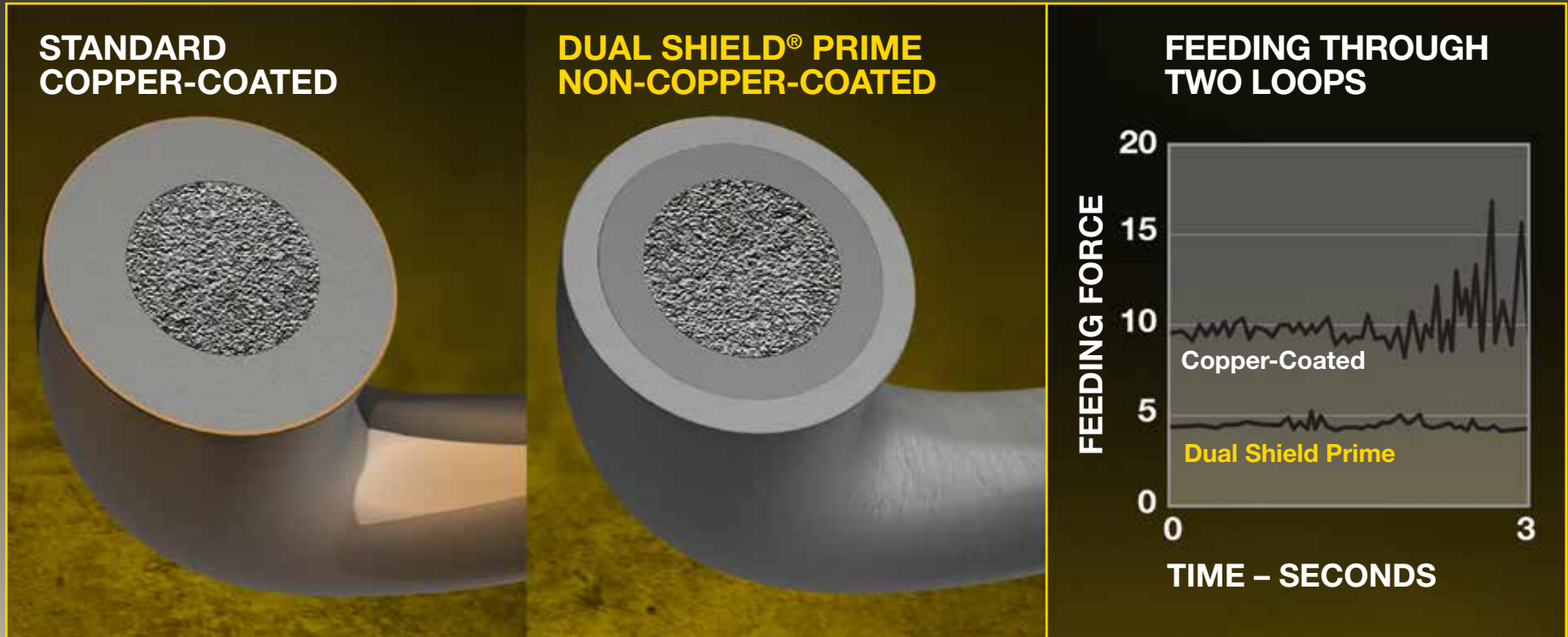
THE DUAL SHIELD® PRIME FAMILY OF SEAMLESS, LOW-HYDROGEN (H4) NON-COPPER-COATED FLUX CORED WIRES FEATURES LASER WELDED SEAMS TO COMBAT MOISTURE ABSORPTION IN HUMID ENVIRONMENTS, DELIVERING IMPACT TOUGHNESS DOWN TO -60° C.

WHETHER YOUR JOB IS IN A SHIPYARD, ON AN OFF-SHORE OIL RIG OR AT A MINING SITE, DUAL SHIELD PRIME SEAMLESS CORED WIRES WERE DESIGNED FOR USE IN THE MOST CRITICAL WELDING APPLICATIONS.

THE UNIQUE FORMULATION PROVIDES YOU WITH THE BEST WELDING SOLUTION AVAILABLE. AN EXCLUSIVE MANUFACTURING PROCESS PRODUCES A HIGH QUALITY, LASER WELDED, SEAMLESS WIRE WITHOUT THE NEED FOR COPPER PLATING, RESULTING IN SUPERIOR QUALITY, AND THE DURABILITY NEEDED TO HANDLE ANY JOB.



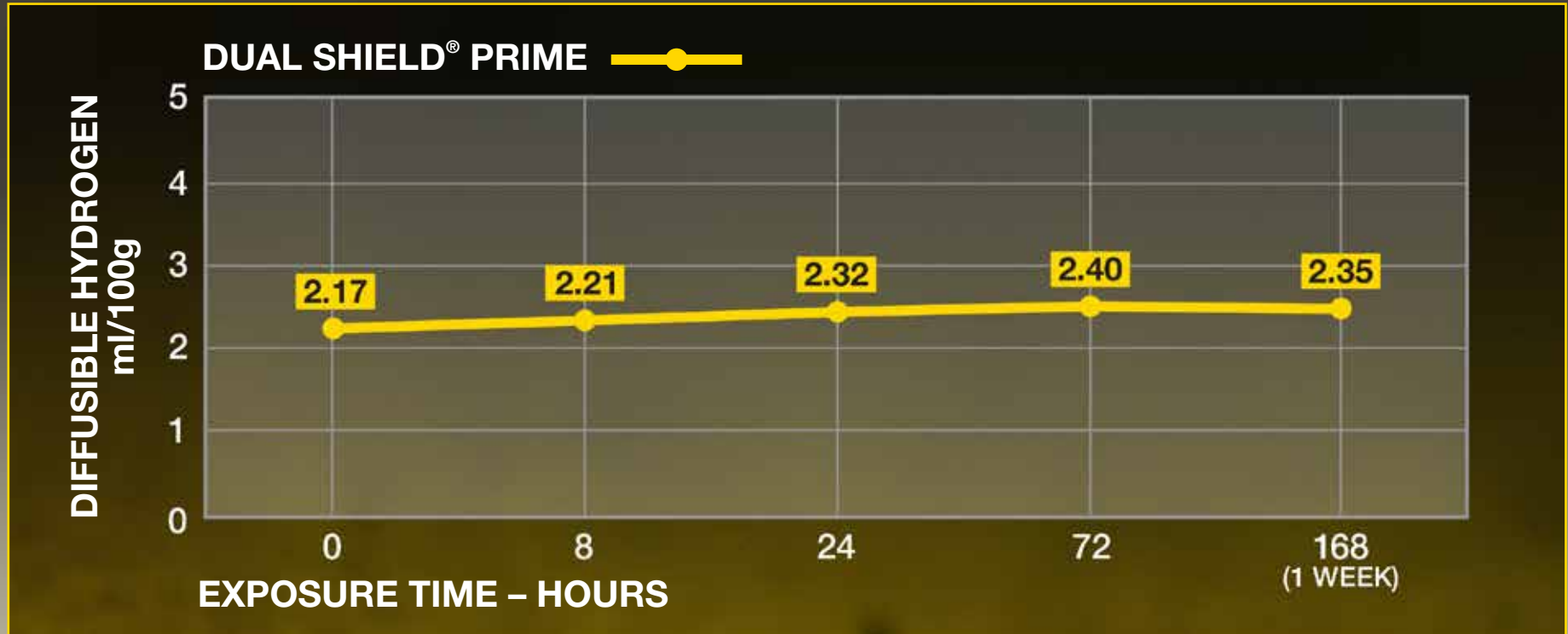
# NO COPPER COATING



Dual Shield Prime is a non-copper-coated wire. As a result, there are no copper flakes to contaminate wire feeders, liners, torches and contact tips with copper particles. The result is trouble free feeding, high process stability, reduced consumption of wear parts and superior welding properties. Combined with lower diffusible hydrogen, these properties add up to increased productivity, lower welding costs and higher quality welds.

- Inhibits rusting of the wire
- No copper flaking during feeding
- Reduces copper in the welding fumes
- Lower feeding force from liner to the welding tip improves feedability and arc stability
- No blockage or burnback
- Extends torch tip life

# LOW DIFFUSIBLE HYDROGEN LEVELS



TEST METHOD: Gas Chromatography Method – AWS A.4.3

EXPOSURE CONDITION: 90% RH, 30° C

WELDING CONDITION: 230A/27V

Dual Shield Prime wires carry an H4 designation, indicating low levels of diffusible hydrogen in the deposited weld metal. We laser seal the seams, so there is no chance of picking up moisture. Even after extended storage and exposure, they retain their low hydrogen properties. Where procedures allow, Dual Shield Prime's low diffusible hydrogen may eliminate or reduce preheat requirements.

- Patented tube-in-tube laser welding manufacturing process produces a seamless cored wire with a very low weld metal diffusible hydrogen level
- More effective way of controlling hydrogen pick up after exposure compared to standard cored wires
- Low hydrogen levels reduce the risk of hydrogen cracking
- Highly recommended for welding of restrained, thick and crack-sensitive steels

## IMPACT TOUGHNESS

Dual Shield Prime wires are especially suited for high-tensile steels and applications that require low temperature impact toughness, notably in the ship, offshore, oil/gas and processing industries. All carry ABS approval, with additional approval by product, including BV approval, for the 81Ni1 H4 grades.





## OPERATOR FRIENDLY

Users at naval shipyards and construction engineering companies report that Dual Shield Prime produces a very soft arc with almost spatter-free welds and easy slag removal - an important consideration in multi-pass applications. With a spray-type transfer, operators can easily manipulate and control the weld puddle, enjoy good wetting with tie-in at the toes of the weld and achieve good penetration.



## DUAL SHIELD PRIME PRODUCTS

ESAB offers Dual Shield Prime in four different compositions and diameters of 1.2 – 1.6 mm:

-  **Dual Shield Prime 71 H4**  
For mild steel and 490N/mm<sup>2</sup> class high tensile steel; uses Ar/CO<sub>2</sub> shielding gas.
-  **Dual Shield Prime 71 LT H4**  
For mild steel and 490N/mm<sup>2</sup> class high tensile steel for low temperature service; uses Ar/CO<sub>2</sub> or 100% CO<sub>2</sub> shielding gas.
-  **Dual Shield Prime 81Ni1 H4**  
For mild steel, 490N/mm<sup>2</sup> class high tensile steel and 550N/mm<sup>2</sup> class high tensile for low temperature service; uses 100% CO<sub>2</sub> shielding gas.
-  **Dual Shield Prime 81Ni1M H4**  
Designed to weld thick steel components and for impact toughness down to -60° C; uses Ar/CO<sub>2</sub> shielding gas.

# UNRIVALED SERVICE AND SUPPORT.

Like all ESAB products, our pipeline solutions are backed by our commitment to superior customer service and support. Our skilled customer service department is prepared to quickly answer any questions, address problems, and help with the maintenance and upgrading of your ESAB equipment and software.

## We offer:

- Value packages, including machine and process audits to maximise your investment
- Proactive preventive maintenance programs and maintenance contracts to keep your equipment and software up and running ESAB plasma consumables for the perfect cut
- Specialised repair services
- Retrofit upgrade products and packages for the latest in machine, control, and software technology
- Complete product and process training, including advanced training programs

And, our products are backed with the most comprehensive warranty in the business. With ESAB, you can be confident that the product you purchased will meet your needs today and in the future.

Ask your ESAB sales representative or distributor for a complete ESAB solution.

For more information, visit [esab.com](http://esab.com).



ESAB / [esab.com](http://esab.com)

