

Innovation in maraging steel

# EutecTrode® XHD 6860

Highest performance for Tool & Die

**NEW**

*Enduring Performance...*



*Stronger with...  
Castolin Eutectic*

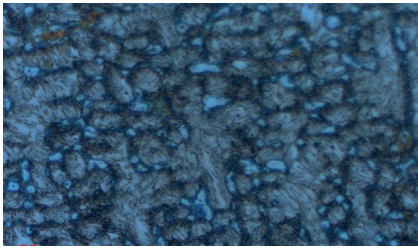
**WELDING**



- Smooth, regular weld surface requires minimal machining
- Low temperature ageing treatment eliminates quenching defects & distortion
- Retain aged hardness up to higher service temperatures
- Good weldability without preheating for practical engineering applications



## XHD 6860 - higher performance electrode with a completely new metallurgical formulation with

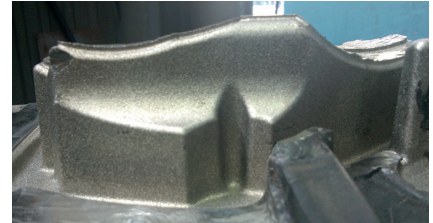


- increased as welded hardness (40 HRC)
- increased aged hardness (60 HRC)
- increased tempering resistance

making XHD 6860 the ideal solution for welding aluminium pressure die casting moulds & tooling

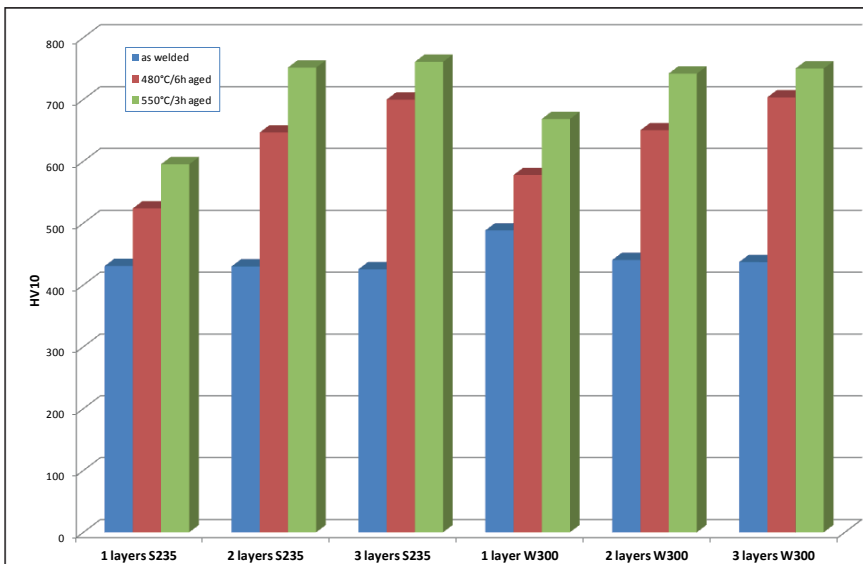
XHD 6860 protective weld coating solutions are recommended for parts particularly in the following industries:

- Tool & Die manufacture / maintenance / repair sectors
- Automotive press / forming dies
- Light alloy pressure die casting
- Plastic injection moulding
- Cold trimming, stamping, extrusion rams, mandrels, screws, shafts etc



Easily machined with standard cutting tool and EDM

Typical applications include: machine tools and dies for cutting, trimming, shearing, stamping, forming, extrusion, metal working operations etc.



### Mechanical Properties

Hardness (20°C) after welding	1st layer	42 HRC
Hardness (20°C) after welding	2nd layer	42 HRC
Hardness (20°C) after welding	3rd layer	41 HRC
Hardness (20°C) after ageing	1st layer (3hr at 550°C)	55 HRC
Hardness (20°C) after ageing	2nd layer (3hr at 550°C)	60 HRC
Hardness (20°C) after ageing	3rd layer (3hr at 550°C)	61 HRC

WELDABILITY MARGING STEELS	WELDABILITY HOT WORKING TOOL STEELS
■ No preheating required	■ Preheating is mandatory
■ No need to maintain welding temperature	■ Welding temperature must be maintained
■ No cooling rate requirements	■ Slow cooling required after welding
■ Welds are resistant to cold H2 cracking	■ Welds are susceptible to cold H2 cracking
■ Welds have low residual stresses	■ Welds have high residual stresses
■ Welds are soft and easy to machine	■ Welds are hard and difficult to machine
■ Automatic stress relief performed during subsequent ageing heat treatment	■ Separate stress relief treatment is required
■ Material properties are almost homogeneous between base metal, heat affected zone (HAZ) and weld metal	■ Material properties differ considerably between base metal, heat affected zone (HAZ) and weld metal



Typical tool surface failure

Your resource for protection, repair and joining solutions



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