



Superior Metal-to-Metal Wear Resistance

Xuper[®] 6804 XHD



- High creep and scaling resistance up to 1600°F (900°C)
- High deposition rate increases efficiency and reduces labor costs
- Moisture resistant coating minimizes porosity and residual element pick-up

Xuper® 6804 XHD

Xuper 6804 XHD is an iron-based electrode that produces weld deposits that achieve a beneficial hardness value with only a single pass. Deposit properties are optimized to resist high temperature galling and display a high creep resistance and superior metal-to-metal wear resistance at elevated temperatures.

Xuper 6804 XHD produces deposits that have a reduced cracking sensitivity compared to iron based electrodes of similar deposit hardness.

TECHNICAL DATA

Typical Values	
Hardness as deposited:	46 - 49 HRC
Work Hardened Hardness:	54 - 57 HRC
Annealing Temperature:	1400 - 1800°F (760 - 800°C)
Hardening Temperature:	1920 - 2010°F (1050 - 1100°C)
Tempering Temperature:	750°F (400°C) - cool in still air

SUGGESTED WELDING PARAMETERS:

Diameter	Amperage
1/8" (3.2mm)	85 - 140
5/32" (4.0mm)	120 - 180

Note: Always keep electrodes in their container during storage. Damp electrodes can cause cracking and porosity. For re-drying procedures check with Technical Services.

PROCEDURE FOR USE

PREPARATION: Clean weld area of scale and/or oxide. For tool and die preheats refer to the requirements for the specific grade of tool steel. For all other low carbon steels a nominal preheat of 150°F (65°C) is advised if the part is below 40°F (4°C) or over 1" thick. For higher carbon steels higher preheats will be needed.

TECHNIQUE: Maintain a medium-to-short arc and incline the electrode at a 45° angle in the direction of travel. Excessive weaving (more than 2 times the electrode diameter) is not advised as wide beads can cause excessive base metal overheating and degrade the weld deposit wear properties. The optimum bead width is a stringer bead. Back whip craters to reduce crater-cracking tendencies.

POST-WELDING: Allow parts to slow cool in still air. High carbon steels, air hardenable steels and all tool steels should be covered with a heat-retardant blanket to control the cool-down rate.

TYPICAL APPLICATIONS

APPLICATIONS	INDUSTRY
• Stamping and Trimming Dies	Automotive Industry
• Hot Forging Dies and Formers	Iron and Steel Works
• Hot Extrusion Plungers	Plastic Manufacturing
• Mandrels	Various Industries
• Steel Mill Table Rolls	Iron and Steel Works

Observe normal welding practices, respiratory protection and proper air flow pattern advised. For general welding practices, see AWS publications Z49.1 "Safety in Welding and Cutting and Allied Process". Welding is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before beginning welding operations. DO NOT operate welding equipment or use welding materials before you have thoroughly read the proper instruction manual(s). Please refer to the Eutectic internet site for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS, AND/OR THE INSTRUCTIONS OF WELDING EQUIPMENT OR MATERIAL MANUALS, MAY BE HAZARDOUS TO YOUR HEALTH.



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