



T H E H A R R I S P R O D U C T S G R O U P
A L I N C O L N E L E C T R I C C O M P A N Y
 4501 Quality Place • Mason, OH 45040 U.S.A Tel: 513-754-2000 Fax: 513-754-6015

TECHNICAL SPECIFICATION SHEET

4130 CR-MO WELDING WIRE

ISO 9001
 Cert. No. 31598

STATEMENT OF LIABILITY- DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.

NOMINAL CHEMICAL COMPOSITION:

Phosphorus	.035% max	Carbon	.28-.33%
Copper	.50% max	Manganese	.40-.60%
Other Totals	.50 % max	Sulfur	.040% max
Nickel	.50% max	Chromium	.80-1.10%
Iron	Balance	Molybdenum	.15-.25%
Silicon	.15-.60%		

**TYPICAL MECHANICAL PROPERTIES AS WELDED:
 (After quenching and tempering)**

Tensile Strength (psi)	Up to 170,000
Elongation % in 2"	7%
Yield Strength (psi)	Up to 166,000

APPLICATION:

4130 is a high strength, low alloy CR-MO steels used to weld alloys of similar composition. Use with a pre-heat and inter-pass temperature of 400°f minimum.

*** RECOMMENDED WELDING PARAMETERS:**

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray transfer

<u>Wire Diameter</u>	<u>AMPS</u>	<u>VOLTS</u>	<u>ARGON/ 2% O2</u>	<u>Wire Feed imp</u>
.030	135-230	24-28	25	390-670
.035	165-300	24-28	30	360-520
.045	200-375	24-30	30-35	210-390
1/16	275-500	24-32	40	150-360
3/32	300-600	24-33	50	75-125

GMAW(MIG) Parameters(DC Reverse Polarity) Electrode Positive short-circuiting transfer

<u>Wire Diameter</u>	<u>AMPS</u>	<u>VOLTS</u>	<u>CO2 / Ar-CO2 (cft)</u>	<u>Wire Feed imp</u>
.023	30-90	14-19	20-25	100-400
.030	40-145	15-21	20-25	160-380
.035	50-180	16-22	20-25	150-340
.045	75-250	17-22	20-25	100-220

⁽³⁾ Setting based on CO₂ for mild steel, Ar-CO₂ for low alloy steel

All statements, information and data given are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind, expressed or implied.

Additional information available at our web site: www.harrisproductsgroup.com

03/17



GTAW (Tig) Parameters (DCSP) 2 %Thoriated Tungsten Electrode negative⁽¹⁾

<u>Material</u>	<u>Tungsten dia. (1)</u>	<u>Filler Wire Size</u>	<u>Amps</u>	<u>Gas Cup</u>	<u>Argon (cfh)</u>
1/16"	1/16"	1/16"	100-140	3/8	20
3/32"	1/16"	1/16"	100-160	3/8	20
1/8"	3/32"	1/16"	125-200	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	150-250	1/2	25
3/8"	1/8"	1/8"	150-275	1/2	25
1/2"	1/8"	1/8"	150-300	1/2	25

All parameters are suggested as basic guidelines and will vary depending on joint design number of passes, and other factors.

SPECIFICATION COMPLIANCE: MEETS HARRIS INTERNAL SPECIFICATION.

WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can KILL.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheets (MSDS), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

All statements, information and data given are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind, expressed or implied.

Additional information available at our web site: www.harrisproductsgroup.com

03/17