



Technical Specification Sheet

50095

Perfect Circle® Welding Wire
TWENTY GAUGE™ (brand)

↔ **TWENTY GAUGE KEY FEATURES**

- METAL CORED WIRE FOR WELDING PLAIN AND GALVANIZED STEEL.**
- DESIGNED FOR SINGLE PASS WELDING OF THIN GAUGE BASE METAL.**
- USES 100% CO2 OR ARGON/CO2 MIXTURE SHIELDING GAS.**
- MINIMUM SPATTER.**
- WELDING POSITIONS – WILL WELD IN ALL POSITIONS BUT IT IS MOST SUITABLE FOR FLAT, HORIZONTAL, & VERTICAL DOWN.**

Description

Twenty Gauge is the best single pass wire for welding bare and coated steel sheet metal. It is ideal for job shop fabrication, auto body repair, farm and workshop projects. Twenty Gauge's innovative composition provides the following welding features:

- No burn through on thin sheet metal.
- No slag or spatter.
- Excellent wetting with superior weld appearance and good tie-in.
- Welds a wide range of steel thickness, 28 gauge, (0.015) to 3/16", (0.188).
- No cold lap. Easily welds in the vertical down position.
- Excellent results with 75 – 90% Ar/CO2 mixtures. Can also be run with 100% CO2 coverage.

Typical Single Pass Weld Deposit Chemistry (%)

Carbon – 0.06
Manganese – 1.50
Silicon – 0.60
Phosphorus – 0.012
Sulfur – 0.0018
Iron – Remainder

Safety Information

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

FUMES AND GASES can be hazardous to your health.

HEAT RAYS (INFRARED RADIATION) from flame or hot metal can injure eyes.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheet (MSDS) and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the flame, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- 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

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. J.W. Harris Co., Inc. and its affiliates shall have no liability in respect thereof.



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Mechanical Testing Results – (75% Argon & 25% CO₂)

Tensile Strength (transverse tensile specimen) - 71,000 PSI. Failed in base metal.
 Bend Test (longitudinal face bend) – Passed.

Specification Conformance

AWS A5.18 Class E70C-GS

Suggested Weld Settings (DC Reverse Polarity, 0.030" wire diameter

(Flat position, groove, or fillet weld lap or tee joints)

Metal Thickness	Joint Type	Wire Feed Speed	Amperage	Voltage	Transfer	Gas Flow (CFH)
24 GA	Lap	150	50-65	15	Short Circuit	25
20 GA	Lap	200-250	80-90	15-16	Short Circuit	25
18 GA	Lap	300-350	100-125	16-19	Short Circuit	25
16 GA	Fillet (lap-tee)	350	125	19-20	Short Circuit	25
10 GA	Fillet (lap-tee)	400	130	21-22	Short Circuit	25
10 GA	Fillet (lap-tee)	400-550	135-175	26-28	Spray	40
¼"	Fillet (lap-tee)	600-795	170-221	29-33	Spray	40

Sizes and packages

- 0.030" diameter x 2 lb. spools
- 0.030" diameter x 10 lb. spools
- 0.030" diameter x 33 lb. spools

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For technical support and product information, visit our web site at www.jwharris.com.