

Solid Wire for Metal-to-Metal Wear Resistant (MAG Welding)

E D S - 6 0 0

■ Application

Hardfacing of drawing die, hot and cold shear, die and metal mold for forging.

■ Feature

1. EDS-600 is martensite type solid wire for MAG welding. Hardness of the the deposited metal is stable at HRC55~60 as welded. It is suitable for hardfacing.
2. As well as excellent abrasion resistance, ductility and notch toughness in normal temperature, the deposited metal of EDS-600 shows excellent abrasion resistance in high temperature.
3. Compare to flux cored wire, fume generation is few. Appearance of bead and welding performance are good, too.

■ Welding Procedure

1. Use MAG welding machine with pulse system. Ar+20%CO₂ is recommended for shield gas. Appropriate gas flow is 15~25 l/min.
2. In general, preheating at over 150°C and maintaining interpass temperature are required. After welding, slow cooling is recommended to prevent crack.
3. In case of multilayer welding or overlaying on the material which has high hardenability, underlaying by welding consumables for high tensile strength steel is effective in preventing crack.

■ Typical Chemical Component of the Wire (%)

C	Si	Mn	Cr	Other Elements
0.40~0.60	1.70~2.00	0.40~0.70	7.50~8.50	≤ 1.0

■ Typical Hardness of the Deposited Metal as welded

HV	HRC	HS
590~700	55~60	73~81

■ Appropriate Welding Conditions (DC Wire+ with Pulse)

Diameter (mm)	Welding Current (A)	Welding Voltage (V)	Gas Flow (l/min.)
1.2	70~110	20~30	Ar+20%CO ₂ 15~25

*Minimum Quantity: 10.0kg

Equivalent to electrode for shielded metal arc welding: EA600W

Equivalent to electrode for TIG welding: EDS-600T