

## Electrode for Surfacing on Various Kinds of Molds (TIG Welding)

# N C M - 1 T

■ Tip Color                      Red

■ Application

Welding of maraging steel such as MAS1 and YAG300.  
 Surfacing on forging die, die-casting mold, cold and hot shear, clutch cam, dies and etc.  
 NCM-1T is also suitable for welding of special steel.

■ Feature

1. NCM-1T is TIG welding electrode of 18% Nickel maraging steel. This shows excellent crack resistance ductility and notch toughness. Also, this has excellent machinability.
2. After machining, ageing treatment at 450~500°C in 2~3 hours gives high hardness, about HV500, to the deposited metal.
3. NCM-1T can use for alloy tool steel and high-tensile steel whose tensile strength exceeds 100kgf/mm<sup>2</sup>.

■ Welding Procedure

1. In general, preheating at 150°C is required. Special steel requires preheating at 300°C and slow cooling.
2. Ageing treatment at more than 600°C is overaging.

■ Typical Chemical Components of the Electrode (%)

C	Si	Mn	Ni	Mo	Co	Al	Ti
≤0.03	≤0.10	≤0.10	18.00~19.00	4.50~5.50	8.50~9.50	0.05~0.15	0.50~1.00

■ Typical Hardness of the Deposited Metal

Conditions	HV	HRC	HS
As Welded	350~400	35~40	48~55
After Ageing Treatment at 500°C in 3hrs	450~500	45~49	60~66

■ Dimensions

Diameter (mm)	Length (mm)	Minimum Quantity (Kg)
1.0 1.2 1.6 2.0 2.6 3.2 4.0 5.0	1,000	5

Equivalent to electrode for shielded metal arc welding: MH-NCM1  
 Equivalent to wire for MAG welding: NCM-1S