Solid Wires (MAG, MIG, TIG)

- For 490N/mm² High Tensile Steel ........ 3-1
- For ≥550N/mm² High Tensile Steel ...... 3-8
- For Heat Resistant Steel ............... 3-10
- For Stainless Steel .................... 3-12
- For Nickel and Nickel Alloy .......... 3-29
DESCRIPTION:
SMG-4 is a copper coated manganese-silicone wire for butt or fillet MAG weldicarbon is carbon isng of mild steel and 490N/mm² grade steel. It is used for short-circuiting arc welding at higher speed on thin plates. One-side welding can be performed with ceramic backing tape. welding It performs with smooth wire feeding, stable arc and low spatter level.

APPLICATIONS:
It is for welding of general fabrication, pressure vessels, structural work and light to medium gauge sheet, pipe and tubular steels.

NOTE ON USAGE:
1. Wire-stick-out must be kept between 15 ~ 25mm.
2. Use 100% CO2 as shielding gas.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%): (Shielding Gas: 100% CO2)
Weld Metal Analysis:
Carbon (C) 0.10
Manganese (Mn) 1.36
Silicon (Si) 0.70
Phosphorus (P) 0.013
Sulphur (S) 0.006

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: 100% CO2)
YP N/mm² 470
TS N/mm² 540
EL% 28

TYPICAL IMPACT VALUES:
IV -30°C J 62.0

APPROVALS:
-

SUGGESTED WELDING PARAMETERS (DC <+>)

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>0.8</th>
<th>0.9</th>
<th>1.0</th>
<th>1.2</th>
<th>1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (Amp)</td>
<td>50 ~ 180</td>
<td>50 ~ 200</td>
<td>80 ~ 250</td>
<td>100 ~ 350</td>
<td>250 ~ 500</td>
</tr>
</tbody>
</table>
**DESCRIPTION**:  
SMG-6 is a copper coated manganese-silicone wire for butt or fillet MAG welding of mild steel and 490N/mm² grade steel. It performs with smooth wire feeding, stable arc and low spatter level.

**APPLICATIONS**:  
It is for welding of general fabrication, pressure vessels, structural work and light to medium gauge sheet, pipe and tubular steels.

**NOTE ON USAGE**:  
1. Wire-stick-out must be kept between 15 ~ 25mm.  
2. Use 100% CO₂ as shielding gas.

**WELDING POSITION:**

![TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) : (Shielding Gas: 100% CO₂)](image)

Weld Metal Analysis:
- Carbon (C): 0.08  
- Manganese (Mn): 1.53  
- Silicon (Si): 0.88  
- Phosphorus (P): 0.018  
- Sulphur (S): 0.008

**TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: 100% CO₂)**
- YP N/mm²: 450  
- TS N/mm²: 550  
- EL (%): 30

**TYPICAL IMPACT VALUES**:  
- IV -30°C J: 52

**APPROVALS**:  
-

**SUGGESTED WELDING PARAMETERS (DC <+>)**

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>0.8</th>
<th>0.9</th>
<th>1.0</th>
<th>1.2</th>
<th>1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (Amp)</td>
<td>50 ~ 180</td>
<td>50 ~ 200</td>
<td>80 ~ 250</td>
<td>100 ~ 350</td>
<td>200 ~ 500</td>
</tr>
</tbody>
</table>
**DESCRIPTION:**
SMG-8 is a solid wire for MAG welding of mild steel and 490N/mm² grade high tensile steel in butt or fillet position. While welded in thick plate, SMG-8 can provide higher deposition efficiency with less fume and good bead appearance.

**APPLICATIONS:**
It is for welding of buildings, vehicles and bridges.

**NOTE ON USAGE:**
1. Wire-stick-out must be kept between 15 ~ 25mm.
2. Use 100% CO₂ as shielding gas.

**WELDING POSITION:**
![Welding Positions]

**TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%)**: (Shielding Gas: 100% CO₂)
Weld Metal Analysis:
- Carbon (C) 0.07
- Manganese (Mn) 1.48
- Silicon (Si) 0.75
- Phosphorus (P) 0.015
- Sulphur (S) 0.008

**TYPICAL MECHANICAL PROPERTIES OF WELD METAL**: (Shielding Gas: 100% CO₂)
- YP N/mm² 465
- TS N/mm² 570
- EL% 31.0

**TYPICAL IMPACT VALUES**:
- IV -30°C J 55.0

**APPROVALS**:
- SMG-8 MIG WIRES FOR 490N/mm² HIGH TENSILE STEEL

**SUGGESTED WELDING PARAMETERS (DC <+>)**

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>1.0</th>
<th>1.2</th>
<th>1.4</th>
<th>1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (Amp)</td>
<td>50 ~ 220</td>
<td>100 ~ 350</td>
<td>150 ~ 450</td>
<td>250 ~ 550</td>
</tr>
</tbody>
</table>
SMG-52

AWS A5.18 ER70S-2
JIS Z3312 G 49 A 3 U C 2
EN ISO 14341-A G 42 3 C G2Ti

MIG WIRES FOR 490N/mm² HIGH TENSILE STEEL

DESCRIPTION:
SMG-52 is a copper coated manganese-silicon wire for welding of mild steel and 490 N/mm² grade steel. Adding on the slight aluminum(Al), titanium(Ti) and zirconium(Zr) metallic elements, the weldability is great on all-position pipe welding of root pass layer. It also has great impact value at -30°C degree.

APPLICATIONS:
Suitable for pressure vessels, petro and chemical industry for root pass welding.

NOTE ON USAGE:
1. Wire-stick-out must be kept between 15 ~ 25mm.
2. Use 100% CO2 as shielding gas.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) : (Shielding Gas: 100% CO2)
Weld Metal Analysis:
- Carbon (C) 0.038
- Manganese (Mn) 1.21
- Silicon (Si) 0.51
- Phosphorus (P) 0.015
- Sulphur (S) 0.008
- Aluminum(Al) 0.06
- Titanium(Ti) 0.08
- Zirconium(Zr) 0.04

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: 100% CO2)
- YP N/mm² 474
- TS N/mm² 545
- EL% 29

TYPICAL IMPACT VALUES:
- IV -30°C J 90

APPROVALS:

SUGGESTED WELDING PARAMETERS (DC <+>)

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>0.8</th>
<th>0.9</th>
<th>1.0</th>
<th>1.2</th>
<th>1.6</th>
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<tbody>
<tr>
<td>Current (Amp)</td>
<td>50 ~ 180</td>
<td>50 ~ 200</td>
<td>80 ~ 250</td>
<td>100 ~ 350</td>
<td>250 ~ 500</td>
</tr>
</tbody>
</table>
DESCRIPTION:
STG-50 is a copper coated manganese-silicone tig rod for welding of mild steel and 490N/mm² grade steel, commonly used on butt or fillet welding of high pressure piping in shipbuilding, petro chemistry and thermal power plant etc.

APPLICATIONS:
It is for all-position tig welding especially on root pass of pipe.

NOTE ON USAGE:
1. Use pure Ar as shielding gas and DC <-> polarity.
2. Clean the surface of base metal to prevent contamination.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%): (Shielding Gas: Ar)
Weld Metal Analysis:
Carbon (C) 0.07
Manganese (Mn) 1.51
Silicon (Si) 0.78
Phosphorus (P) 0.013
Sulphur (S) 0.006

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: Ar)
YP N/mm² 470
TS N/mm² 550
EL% 30

TYPICAL IMPACT VALUES:
IV -30°C J 155

APPROVALS:
ABS

SIZES AVAILABLE, LENGTH:

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>1.2</th>
<th>1.6</th>
<th>2.0</th>
<th>2.4</th>
<th>3.2</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DESCRIPTION:
SMG-52 is a copper coated manganese-silicon wire for welding of mild steel and 490 N/mm² grade steel. Adding on the slight aluminum(Al), titanium(Ti) and zirconium(Zr) metallic elements, the weldability is great on all-position pipe welding of root pass layer. It also has great impact value at -30°C degree.

APPLICATIONS:
Suitable for pressure vessels, petro and chemical industry for root pass welding.

NOTE ON USAGE:
1. Use pure Ar as shielding gas and DC <-> polarity.
2. Clean the surface of base metal to prevent contamination.

WELDING POSITION:

![Welding Positions]

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):(Shielding Gas: Ar)
Weld Metal Analysis:
- Carbon (C) 0.038
- Manganese (Mn) 1.18
- Silicon (Si) 0.49
- Phosphorus (P) 0.013
- Sulphur (S) 0.008
- Aluminum(Al) 0.07
- Titanium(Ti) 0.09
- Zirconium(Zr) 0.05

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: Ar)
- YP N/mm² 480
- TS N/mm² 561
- EL% 29

TYPICAL IMPACT VALUES:
- IV -30°C J 120

APPROVALS:
-

SIZES AVAILABLE, LENGTH:

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>1.2</th>
<th>1.6</th>
<th>2.0</th>
<th>2.4</th>
<th>3.2</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>1000</td>
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</tbody>
</table>

STG-52 A5.18 ER70S-2
JIS Z3316 YGT50
EN ISO 636-A W 42 3 W2Ti

TIG RODS FOR 490N/mm² HIGH TENSILE STEEL

SOREX
The Professional Quality
STG-56

TIG RODS FOR 490N/mm² HIGH TENSILE STEEL

DESCRIPTION:
STG-56 is a copper coated manganese-silicone tig rod for welding of mild steel and 490 N/mm² grade steel. It is suitable for the first backing welding of pipe.

APPLICATIONS:
It is used for welding mild and high tensile steel, such as shipbuilding, pressure vessels, vehicles, petrochemical, pipes of nuclear plant and other high pressure equipment.

NOTE ON USAGE:
1. Use pure Ar as shielding gas and DC <-> polarity.
2. Clean the surface of base metal to prevent contamination.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%): (Shielding Gas: Ar)
Weld Metal Analysis:
- Carbon (C) 0.090
- Manganese (Mn) 1.44
- Silicon (Si) 0.88
- Phosphorus (P) 0.014
- Sulphur (S) 0.009

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: Ar)
- YP N/mm² 461
- TS N/mm² 570
- EL% 28

TYPICAL IMPACT VALUES:
- IV -30°C J 105

APPROVALS:
- ABS

SIZES AVAILABLE, LENGTH:

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>1.2</th>
<th>1.6</th>
<th>2.0</th>
<th>2.4</th>
<th>3.2</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DESCRIPTION:
SMG-60 is a solid wire of mild steel and 550N/mm² grade steel. It has great weldability, less spatter, stable arc and can adopt to wider range of current parameter.

APPLICATIONS:
It is used for welding high tensile strength steel, such as steel construction, pressure vessels, vehicles and bridges.

NOTE ON USAGE:
1. Wire-stick-out must be kept between 15 ~ 25mm.
2. Use 100% CO₂ as sheilding gas.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):(Shielding Gas: Ar)
Weld Metal Analysis:
Carbon (C) 0.074
Manganese (Mn) 1.41
Silicon (Si) 0.73
Phosphorus (P) 0.013
Sulphur (S) 0.006
Molybdenum (Mo) 0.39

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: Ar)
YP N/mm²  550
TS N/mm²  625
EL% 28.0

TYPICAL IMPACT VALUES:
IV -30°C J 70.0

APPROVALS:
- 

SUGGESTED WELDING PARAMETERS (DC <+>)

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>0.8</th>
<th>0.9</th>
<th>1.0</th>
<th>1.2</th>
<th>1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (Amp)</td>
<td>50 ~ 180</td>
<td>50 ~ 200</td>
<td>80 ~ 250</td>
<td>100 ~ 350</td>
<td>250 ~ 500</td>
</tr>
</tbody>
</table>
**DESCRIPTION:**
STG-60 is a solid wire for flat or horizontal fillet welding position of mild steel and 590N/mm² grade steel. An efficient welding and nice bead appearance can be obtained.

**APPLICATIONS:**
It is used for welding high tensile strength steel, such as steel construction, pressure vessels, vehicles and bridges.

**NOTE ON USAGE:**
1. Use pure Ar as shielding gas and DC <-> polarity.
2. E.S.O. must be kept between 15 ~ 25mm
3. Proper welding parameter shall be adopted for better welding performance

**WELDING POSITION:**

![Welding Positions](image)

**TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):(Shielding Gas: Ar)**
Weld Metal Analysis:
- Carbon (C) 0.06
- Manganese (Mn) 1.72
- Silicon (Si) 0.57
- Phosphorus (P) 0.015
- Sulphur (S) 0.009
- Molybdenum (Mo) 0.41

**TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: Ar)**
- YP N/mm² 585
- TS N/mm² 675
- EL% 29

**TYPICAL IMPACT VALUES:**
- IV -30°C J 103

**APPROVALS:**
- STG-60 TIG RODS FOR \( \geq 550\text{N/mm}^2 \) HIGH TENSILE STEEL

**SIZES AVAILABLE, LENGTH:**

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>1.2</th>
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<th>2.0</th>
<th>2.4</th>
<th>3.2</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DESCRIPTION:
STG-80B2 is a 1.25%Cr-0.5%Mo alloyed, copper coated rod for suitable for GTAW of pipelines and pressure vessels with high temperature at 500°C.

APPLICATIONS:
It is used for welding low alloy steels with high tensile strength and creep resistant steels, such as ASTM type including A199-76, A200-75, A213-76d, A333-76, A369-76, A387-76.

NOTE ON USAGE:
1. welding current : DC-

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) : (Shielding Gas: Ar)
Weld Metal Analysis:
Carbon (C) 0.08
Manganese (Mn) 0.59
Silicon (Si) 0.53
Phosphorus (P) 0.018
Sulphur (S) 0.009
Chromium (Cr) 1.29
Molybdenum (Mo) 0.53

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: Ar)
YP N/mm² 490
TS N/mm² 580
EL% 26

HEAT TREATMENT:
690°C X 1hr

APPROVALS:
-

SIZES AVAILABLE, LENGTH:

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>1.2</th>
<th>1.6</th>
<th>2.0</th>
<th>2.4</th>
<th>3.2</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DESCRIPTION:
STG-90B3 is 2.5%Cr-1%Mo-alloyed, copper coated rod for GTAW of pressure vessels and boilers with high temperature up to 600°C.

APPLICATIONS:
It is used for creep resistant steels like SA 387 Grade 22, A355 Grade P22 or similar materials.

NOTE ON USAGE:
1. welding current: DC-

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%): (Shielding Gas: Ar)
Weld Metal Analysis:
Carbon (C) 0.08
Manganese (Mn) 0.58
Silicon (Si) 0.48
Phosphorus (P) 0.018
Sulphur (S) 0.009
Chromium (Cr) 2.37
Molybdenum (Mo) 1.02

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: Ar)
YP N/mm² 590
TS N/mm² 660
EL% 22

HEAT TREATMENT:
690°C X 1hr

APPROVALS:
-

SIZES AVAILABLE, LENGTH:

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>1.2</th>
<th>1.6</th>
<th>2.0</th>
<th>2.4</th>
<th>3.2</th>
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<tbody>
<tr>
<td>Length (mm)</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DESCRIPTION:
307Si austenitic stainless steel solid MIG wires and TIG rods are suitable for work hardening steels, armour plates, manganese steels, heat resistance steel and dissimilar metals.

APPLICATIONS:
Typical applications include stainless steel in armour vehicle, refurbishment and repair and marine industries.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.07
Manganese (Mn) 6.74
Silicon (Si) 0.70
Nickel (Ni) 8.92
Chromium (Cr) 19.51
Molybdenum (Mo) 0.12

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 600
EL% 40

APPROVALS:
- 

SIZES AVAILABLE
<table>
<thead>
<tr>
<th>MIG Solid Wires (mm)</th>
<th>0.9, 1.0, 1.2, 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIG Rods (mm)</td>
<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
</tr>
</tbody>
</table>
DESCRIPTION:
It is designed with lower range carbon to help prevent intergranular corrosion, used to weld types 301, 302, 304 and 308 stainless steels. It is also used for joining some dissimilar 300 series stainless steels.

APPLICATIONS:
Typical applications include welding of AISI 301, 302 and 308 in chemical, oil and gas refineries, stainless steel sheet metal works and rail car fabrication industry.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
<table>
<thead>
<tr>
<th>Element</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon (C)</td>
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<td>Manganese (Mn)</td>
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<tr>
<td>Silicon (Si)</td>
<td>0.42</td>
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<tr>
<td>Nickel (Ni)</td>
<td>10.30</td>
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<tr>
<td>Chromium (Cr)</td>
<td>20.20</td>
</tr>
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</table>

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>TS N/mm²</td>
<td>580</td>
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<tr>
<td>EL%</td>
<td>42</td>
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</table>

APPROVALS:
-

SIZES AVAILABLE

<table>
<thead>
<tr>
<th>Wire Type</th>
<th>Sizes</th>
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<tbody>
<tr>
<td>MIG Solid Wires (mm)</td>
<td>0.9, 1.0, 1.2, 1.6</td>
</tr>
<tr>
<td>TIG Rods (mm)</td>
<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
</tr>
</tbody>
</table>
DESCRIPTION:
A 308L type austenitic stainless steel with modified higher silicon level to increase weld puddle fluidity, ensuring better tie-ins and potentially higher welding speed.

APPLICATIONS:
Typical applications include welding of AISI 308L in chemical, oil and gas refineries, stainless steel sheet metal works and rail car fabrication industry

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) :
Weld Metal Analysis:
Carbon (C) 0.021
Manganese (Mn) 1.88
Silicon (Si) 0.78
Nickel (Ni) 10.40
Chromium (Cr) 19.90

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 590
EL% 42

APPROVALS:
-

SIZES AVAILABLE

<table>
<thead>
<tr>
<th>MIG Solid Wires (mm)</th>
<th>0.9, 1.0, 1.2, 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIG Rods (mm)</td>
<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
</tr>
</tbody>
</table>
DESCRIPTION:
It is used to join similar 309L alloys or join 300 series stainless steels to carbon or low alloy steels. The lower carbon content designed to prevent intergranular corrosion when it is used to weld 300 series stainless steels.

APPLICATIONS:
Typical applications include welding of AISI 309 type stainless steel in chemical, oil and gas refineries, and welding of dissimilar base metals of stainless and carbon steels.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.015
Manganese (Mn) 1.51
Silicon (Si) 0.45
Nickel (Ni) 12.80
Chromium (Cr) 23.20

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm2 590
EL% 40

APPROVALS:
-

SIZES AVAILABLE

<table>
<thead>
<tr>
<th>MIG Solid Wires (mm)</th>
<th>0.9, 1.0, 1.2, 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIG Rods (mm)</td>
<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
</tr>
</tbody>
</table>
DESCRIPTION:
A 309L type austenitic stainless steel with modified higher silicon level to increase weld puddle fluidity, ensuring better tie-ins and potentially higher welding speed.

APPLICATIONS:
Typical applications include welding of AISI 304L, 316L in chemical, oil and gas refineries, and welding of dissimilar base metals of stainless and carbon steels.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.017
Manganese (Mn) 1.81
Silicon (Si) 0.74
Nickel (Ni) 13.50
Chromium (Cr) 23.30

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 587
EL% 39

APPROVALS:
-

SIZES AVAILABLE

<table>
<thead>
<tr>
<th>MIG Solid Wires (mm)</th>
<th>0.9, 1.0, 1.2, 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIG Rods (mm)</td>
<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
</tr>
</tbody>
</table>
DESCRIPTION:
It is an austenitic stainless steel filler metal with excellent corrosion and heat resistance, ideal for welding and building up parts for heat treatment and case hardening furnaces, cement kilns and other burners subject to high temperature oxidation in a non-sulphurous atmosphere.

APPLICATIONS:
Typical applications include marine, re-conditioning and refurbishment industries.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:
![Welding Positions](image)

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
- Carbon (C) 0.09
- Manganese (Mn) 1.53
- Silicon (Si) 0.49
- Nickel (Ni) 21.50
- Chromium (Cr) 27.00

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
- Tensile Strength (TS) N/mm² 610
- Elongation (EL%) 41

APPROVALS:
- 

SIZES AVAILABLE

<table>
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</table>
SMG-312     STG-312
MIG WIRES & TIG RODS FOR STAINLESS STEEL

DESCRIPTION:
It is an austenitic stainless steel filler metal for welding 29Cr9Ni stainless cast steel or dissimilar metal to join 300 series stainless steels to carbon or low alloy steels.

APPLICATIONS:
Typical applications include marine, re-conditioning and refurbishment industries.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.09
Manganese (Mn) 1.71
Silicon (Si) 0.48
Nickel (Ni) 8.81
Chromium (Cr) 30.10

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 710
EL% 26

APPROVALS:

SIZES AVAILABLE

<table>
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<tr>
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<tr>
<td>TIG Rods (mm)</td>
<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
</tr>
</tbody>
</table>
DESCRIPTION:
It is a molybdenum bearing alloy for increased pitting corrosion resistance. The carbon is limited to the lower range for better intergranular corrosion resistance.

APPLICATIONS:
Typical applications include welding of 18Cr-12Ni-2Mo stainless steel in chemical, oil and gas refineries. Excellent creep strength, and resistance to pitting corrosion.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
- Carbon (C) 0.02
- Manganese (Mn) 1.45
- Silicon (Si) 0.51
- Nickel (Ni) 11.50
- Chromium (Cr) 18.20
- Molybdenum (Mo) 2.30

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
- TS N/mm² 580
- EL% 40

APPROVALS:
-

SIZES AVAILABLE

<table>
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<tr>
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</tr>
</tbody>
</table>
DESCRIPTION:
A 316L type austenitic stainless steel with modified higher silicon level to increase weld puddle fluidity, ensuring better tie-ins and potentially higher welding speed.

APPLICATIONS:
Typical applications include welding of 18Cr-12Ni-2Mo stainless steel in chemical, oil and gas refineries. Excellent creep strength, and resistance to pitting corrosion

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.018
Manganese (Mn) 1.51
Silicon (Si) 0.83
Nickel (Ni) 11.60
Chromium (Cr) 18.60
Molybdenum (Mo) 2.40

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 580
EL% 39

APPROVALS:
-

SIZES AVAILABLE
| MIG Solid Wires (mm) | 0.9, 1.0, 1.2, 1.6 |
| TIG Rods (mm)       | 1.0, 1.2, 1.6, 2.0, 2.4, 3.2 |
DESCRIPTION:
A continuous, solid, corrosion-resistant, chromium-nickel-molybdenum wire for welding austenitic stainless alloys of the 19% Cr, 13% Ni, 3%Mo types. This wire has a low carbon content which makes it particularly recommended where there is a risk of intergranular corrosion. It has a good resistance to general corrosion and pitting due to its high content of molybdenum.

APPLICATIONS:
It is used in severe corrosion conditions, such as in the petrochemical, pulp and paper industries.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.012
Manganese (Mn) 1.32
Silicon (Si) 0.53
Nickel (Ni) 13.50
Chromium (Cr) 19.60
Molybdenum (Mo) 3.20

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 570
EL% 41

APPROVALS:
-

SIZES AVAILABLE
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</table>
DESCRIPTION:
It is stabilized with columbium (Niobium) to prevent intergranular corrosion. Better corrosion resistance than type 308. It is used for welding type 321 and 347 stainless steels. It provides good corrosion resistance in service temperature up to 760 degrees C.

APPLICATIONS:
Typical applications include welding of corrosion resistance steels in high temperature services found in chemical refineries, smelter and power plants.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.03
Manganese (Mn) 1.38
Silicon (Si) 0.61
Nickel (Ni) 9.31
Chromium (Cr) 19.40
Niobium (Nb) 0.480

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 620
EL% 40

APPROVALS:
-

SIZES AVAILABLE

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DESCRIPTION:
SMG-409Cb is the welding wire for catalytic converters as well as exhaust silencers, mufflers, manifolds, and manifold elbows of analogous or similar materials. It's also used for repair welding and surfacing of sealing faces of gas, water, and steam turbines with service temperatures of up to +450 °C. Resists scaling up to +900 °C.

APPLICATIONS:
This is a ferritic stainless steel welding alloy used to weld types 409 and 409Ti base metals. The addition of columbium leads to a preferential reaction with carbon which interrupts chromium from forming carbides.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.03
Manganese (Mn) 0.65
Silicon (Si) 0.62
Nickel (Ni) 0.32
Chromium (Cr) 11.30
Niobium (Nb) 0.450

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 460
EL% 26

APPROVALS:
-

SIZES AVAILABLE
MIG Solid Wires (mm) 0.9, 1.0, 1.2, 1.6
DESCRIPTION:
It is a hardening stainless steel filler metal for welding 13Cr stainless steels. It deposits heat-treatable weld metal. Pre-heating and Post Weld Heat Treatment may be required.

APPLICATIONS:
Typical applications are welding of 410 types stainless steels in marine industries, oil and gas drilling and power plant equipment manufacturing industries.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.03
Manganese (Mn) 0.48
Silicon (Si) 0.39
Nickel (Ni) 0.41
Chromium (Cr) 12.50

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 520
EL% 25

HEAT TREATMENT:
750°C X 1hr

APPROVALS:

SIZES AVAILABLE

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DESCRIPTION:
It is a stronger 13% Cr steel wire with higher strength and hardness and better wear resistance than ER410 wire. This filler metal is similar to ER410, except for the higher carbon content. It requires preheat and interpass temperature of not less than 204°C, followed by slow cooling.

APPLICATIONS:
It is often used for surfacing applications that call for superior resistance to abrasion.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.31
Manganese (Mn) 0.42
Silicon (Si) 0.38
Nickel (Ni) 0.32
Chromium (Cr) 13.10

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 520
EL% 25

APPROVALS:
-

SIZES AVAILABLE
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DESCRIPTION:
It is a ferrite stainless steel with good ductility in heat-treated condition. It is used for welding 17% Cr steels, overlays and thermal spraying.

APPLICATIONS:
Typical applications are welding of 409 and 430 types stainless steels used in automotive mufflers.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.
4. Preheating of the joint to a minimum of 150°C is recommended before welding.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.06
Manganese (Mn) 0.42
Silicon (Si) 0.34
Nickel (Ni) 0.38
Chromium (Cr) 16.20

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 530
EL% 25

HEAT TREATMENT:
780°C X 2hr

APPROVALS:
-

SIZES AVAILABLE

<table>
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<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
</tr>
</tbody>
</table>
DESCRIPTION:
It is designed for welding AISI 439 ferrite stainless steel or other 18% Cr steels.

APPLICATIONS:
Typical application is welding of automotive exhaust system.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.03
Manganese (Mn) 0.65
Silicon (Si) 0.53
Nickel (Ni) 0.18
Chromium (Cr) 18.30
Titanium (Ti) 0.42

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 505
EL% 40

APPROVALS:
-

SIZES AVAILABLE
MIG Solid Wires (mm) 0.9, 1.0, 1.2, 1.6
DESCRIPTION:
It is a precipitation hardening stainless steel used for welding of materials of similar chemical composition. Mechanical properties of this alloy are greatly influenced by the heat treatment.

APPLICATIONS:
It is used for welding ASTM A564 Type 630 (17%Cr and 4%Ni) and precipitation-hardening stainless steel.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.03
Manganese (Mn) 0.61
Silicon (Si) 0.59
Nickel (Ni) 4.83
Chromium (Cr) 16.40
Copper (Cu) 3.60
Niobium (Nb) 0.23

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 990
EL% 10

APPROVALS:
-

SIZES AVAILABLE

<table>
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</tbody>
</table>
DESCRIPTION:
A nickel-based wire contains 20%Cr, 3%Mo and 2.5%Nb, suitable for welding of high-alloyed steel, heat-resistant steel, corrosion-resistant steel, 9% Ni and similar steels with high notch toughness at low temperatures. It is also suitable for joining dissimilar metals of the type mentioned above.

APPLICATIONS:
It is used for nickel and nickel alloys, low-temperature steels up to X8Ni9, unalloyed and alloyed, high-temperature, creep resisting, high-alloy Cr- and CrNiMo-steels particularly for joint welding of dissimilar steels, and nickel to steel combinations; also recommended for Alloy 800 (H).

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
- Carbon (C) 0.03
- Manganese (Mn) 2.70
- Silicon (Si) 0.11
- Nickel (Ni) Bal.
- Chromium (Cr) 20.03
- Ferrum (Fe) 1.30
- Niobium (Nb) 2.52
- Titanium (Ti) 0.3

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
- TS N/mm² 672
- EL% 42

APPROVALS:
-

SIZES AVAILABLE:

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</tbody>
</table>
DESCRIPTION:
A nickel-based wire contains 22%Cr, 9%Mo and 3.5%Nb, suitable for welding of high-alloyed steel, heat-resistant steel, corrosion-resistant steel, 9% Ni and similar steels with high notch toughness at low temperatures. It is also suitable for joining dissimilar metals of the type mentioned above.

APPLICATIONS:
It is applied for 2.4856 NiCr 22 Mo 9 Nb, 2.4858 NiCr 21 Mo, 2.4816 NiCr 15 Fe, 1.4583 X10CrNiMoNb18-12, 1.4876 X 10 NiCrAlTi 32 20 H, 1.4876 X 10 NiCrAlTi 32 20, 1.4529 X1NiCrMoCuN25-20-7, X 2 CrNiMoCuN 20 18 6, 2.4641 NiCr 21 Mo 6 Cu joint welds of listed materials with non alloy and low alloy steels, e.g. P265GH, P285NH, P295GH, 16Mo3, S355N, X8Ni9, ASTM A 553 Gr.1, Alloy 600, Alloy 625, Alloy 800, 9 % Ni-steels

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.01
Manganese (Mn) 0.03
Silicon (Si) 0.07
Nickel (Ni) 65.24
Chromium (Cr) 22.18
Molybdenum (Mo) 8.670
Ferrum (Fe) 0.20
Niobium (Nb) 3.61
Aluminum (Al) 0.15
Titanium (Ti) 0.16

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 786
EL% 42

APPROVALS:

SIZES AVAILABLE

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DESCRIPTION:
This wire is used for welding of similar alloyed Ni base steel grades, e.g. N10276, 2.4819, NiMo16Cr15 W, as well as for joining these grades with low alloyed and stainless steels. It is employed primarily for welding components in plants for chemical processes with highly corrosive media, but also for surfacing press tools, punches etc. which operate at high temperatures.

APPLICATIONS:
It is applied for NiMo16Cr15W (2.4819), Alloy C-276, UNS N10276, B575, B626, joint welds of listed materials with low alloy and stainless steels.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.01
Manganese (Mn) 0.40
Silicon (Si) 0.05
Nickel (Ni) Bal.
Chromium (Cr) 15.67
Molybdenum (Mo) 15.960
Ferrum (Fe) 5.910
Wolfram (W) 3.12

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 745
EL% 41

APPROVALS:
-

SIZES AVAILABLE
| MIG Solid Wires (mm) | 0.9, 1.0, 1.2, 1.6 |
| TIG Rods (mm)       | 1.0, 1.2, 1.6, 2.0, 2.4, 3.2 |
DESCRIPTION:
This wire can be obtained good resistance to pitting and crevice corrosion because of high chromium content and molybdenum. In addition to the welding of Inconel alloy 22, Inconel alloy 625, Incoloy alloy 25-6Mo and Incoloy alloy 825, it is also an excellent dissimilar metal welding product that offers protection against preferential weld metal corrosion when used for joining molybdenum containing stainless steels, Inconel alloy C-276, and Inconel alloy 625.

APPLICATIONS:
It is applied for welding of Inconel alloys 22 and 625, Incoloy alloy 25-6Mo and Incoloy alloy 825.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) :
Weld Metal Analysis:
Carbon (C) 0.008
Manganese (Mn) 0.40
Silicon (Si) 0.04
Nickel (Ni) Bal.
Chromium (Cr) 21.52
Molybdenum (Mo) 13.54
Ferrum (Fe) 3.10
Wolfram (W) 3.07

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm2 751
EL% 38

APPROVALS:
-

SIZES AVAILABLE
| MIG Solid Wires (mm) | 0.9, 1.0, 1.2, 1.6 |
| TIG Rods (mm)       | 1.0, 1.2, 1.6, 2.0, 2.4, 3.2 |
DESCRIPTION:
This wire is used for joining and surfacing of nickel-copper alloys and of nickel-copper-clad steels. It is also used for joining different materials, such as steel to copper and copper alloys, steel to nickel-copper alloys. It can give excellent corrosion resistance to chloride included stress corrosion cracking and a wide range of marine and chemical requirements.

APPLICATIONS:
It is suitable for welding of alloy 400, N04400, 2.4360 NiCu30Fe, 2.4375 and NiCu30Al.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.018
Manganese (Mn) 3.50
Silicon (Si) 0.31
Nickel (Ni) 65.24
Ferrum (Fe) 0.550
Aluminum (Al) 0.028
Titanium (Ti) 1.56
Copper (Cu) Bal.

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 566
EL% 41

APPROVALS:
-

SIZES AVAILABLE

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MIG WIRES & TIG RODS FOR NICKEL ALLOY STEEL

DESCRIPTION:
A nickel-based wire alloyed with 3% Ti for the welding of high-purity nickel (min. 99.6% Ni), ordinary wrought nickel and nickel with a reduced carbon content. The weld metal has a good corrosion resistance, particularly in alkalies.

APPLICATIONS:
It is suitable for welding of Nickel 200 and 201, as well as surfacing of steel.

NOTE ON USAGE:
1. For GTAW process, use DC-EN, Argon Shield and Tungsten Electrode
2. For GMAW process, Spray Transfer or Short Circuit Transfer mode can be used
3. 98% Argon - 2% O2 shielding gas is recommended in GMAW process.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):
Weld Metal Analysis:
Carbon (C) 0.02
Manganese (Mn) 0.31
Silicon (Si) 0.37
Nickel (Ni) 96.14
Ferrum (Fe) 0.070
Aluminum (Al) 0.820
Titanium (Ti) 2.75
Copper (Cu) 0.005

TYPICAL MECHANICAL PROPERTIES OF WELD METAL:
TS N/mm² 475
EL% 37

APPROVALS:
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SIZES AVAILABLE

<table>
<thead>
<tr>
<th>MIG Solid Wires (mm)</th>
<th>0.9, 1.0, 1.2, 1.6</th>
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<tr>
<td>TIG Rods (mm)</td>
<td>1.0, 1.2, 1.6, 2.0, 2.4, 3.2</td>
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