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# Shielding gases for other Metals

| METAL | MIG/MAG/FCA WELDING Recommended Gases | Comments | TIG WELDING Recommended Gases | Comments |
|---|---|---|---|---|
| Carbon Steels | Ferromaxx 7<br>(ISO 14175 - M24)<br><br>7% CO2<br>2.5% O2<br>90.5 Ar | The thin sheet specialist<br>Suitable for dip, spray and pulsed transfer MAG welding. Improves weld quality and reduces the frequency of rejects. Gives excellent weld pool control, particularly at low voltages on thin sheet materials (up to 10mm thick) and for positional welding | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | Improves weld quality and reduces rejects through excellent penetration profiles. Higher productivity than argon especially on thicker sections. Produces minimal ozone |
| | Ferromaxx 15<br>(ISO 14175 - M24)<br><br>15% CO2<br>2.5% O2<br>82.5 Ar | The reliable all-rounder<br>Suitable for dip, spray and pulsed transfer MAG welding of all material thickness. Gives excellent penetration profiles and is tolerant to variations in weld parameter settings. Allows for reduced cylinder stocks as it is suitable for all thickness. Produces minimal ozone. | Argon<br>(ISO 14175 - I1) | Minimum 99.998% purity. Suitable for all TIG welding and purging applications on all thicknesses |
| | Ferromaxx Plus<br>(ISO 14175 - M20)<br><br>12% CO2<br>20% He<br>68 Ar | The high performer<br>Suitable for dip, spray and pulsed transfer MAG welding of all material thickness. Solid, metal & flux cored wires. Can give up to 20% increase in welding speed combined with excellent penetration characteristics. Gives excellent welder appeal with good tolerance to variations in weld parameter settings. Produces minimal ozone. | | |
| Stainless Steels | Inomaxx 2<br>(ISO 14175 - M12)<br><br>2% CO2<br>98% Ar | The all-rounder for MAG welding stainless steel.<br>Suitable for dip, spray and pulsed transfer MAG welding of all material thickness with solid wires. | Inomaxx TIG<br>(ISO 14175 - R1)<br><br>2% H2<br>98% Ar | The best gas for TIG stainless steel<br>Suitable only for austenitic stainless steels (300 series). Can give up to 30% increase in welding speeds compared to argon. Improves weld quality giving brilliant, smooth, flat weld profiles. Suitable for all welding and purging applications. Produces minimal ozone |
| | Inomaxx Plus<br>(ISO 14175 - M12)<br><br>2% CO2<br>35% He<br>63% Ar | The best gas for MAG welding stainless steel<br>Suitable for dip, spray and pulsed transfer MAG welding of all material thickness. Can give up to 17% increase in welding speed combined with excellent surface profiles and enhanced penetration profiles. Gives excellent welder appeal with good tolerance to variations in weld parameter settings. Produces minimal ozone. | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | Suitable for TIG welding and purging all grades of stainless steel. Improves weld quality and reduces rejects through excellent penetration profiles. Higher productivity than argon especially on thicker sections. Suitable for all welding and purging applications. Produces minimal ozone |
| | | | Argon<br>(ISO 14175 - I1) | Minimum 99.998% purity. Suitable for all TIG welding and purging applications |
| Aluminium & Magnesium Alloys | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | The best and only gas for aluminium Suitable for pulse and spray transfer MIG welding of all material thickness. Produces low porosity welds with enhanced penetration profiles. Can give up to 24% increase in welding speed with smooth, flat weld bead profiles. Produces minimal ozone. | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | The best and only gas for aluminium<br>Suitable for TIG welding of all material thickness. Gives excellent arc striking. Produces low porosity welds with enhanced penetration profiles. Can give up to 35% increase in welding speed with smooth, flat weld bead profiles. Produces minimal ozone. |
| | Argon<br>(ISO 14175 - I1) | Minimum 99.998% purity. Suitable for MIG welding applications on materials < 6mm thick | Argon<br>(ISO 14175 - I1) | Minimum 99.998% purity. Suitable for TIG welding applications on materials < 6mm thick |
| Copper & Cupro Nickel Alloys | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | Suitable for MIG welding all material thickness. Increases weld pool fluidity results in increased welding speeds and porosity reduction. | Alumaxx Plus<br>(ISO 14175 - I3) | Provides higher heat input for thicker materials. Suitable for all TIG welding and purging applications |
| | | | Argon<br>(ISO 14175 - I1) | Minimum 99.998% purity. Suitable for all TIG welding and purging applications |
| Nickel & Alloys | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | Suitable for MIG welding all material thickness. Increases weld pool fluidity results in increased welding speeds and porosity reduction. | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | Suitable for TIG welding all material thickness. Increases weld pool fluidity results in porosity reduction, improved penetration profiles and surface finishes. Suitable for all TIG welding and purging applications |
| | | | Argon<br>(ISO 14175 - I1) | Minimum 99.998% purity. Suitable for TIG welding applications on all material thickness |
| Titanium & Alloys | | | Alumaxx Plus<br>(ISO 14175 - I3)<br><br>30% He<br>70% Ar | High purity mixture. Provides improved penetration profiles on all material thickness. Suitable for all TIG welding and purging applications |
| | | | Argon<br>(ISO 14175 - I1) | Minimum 99.998% purity. Suitable for TIG welding applications on all material thickness |