**Guide to Welding Shades Numbers**

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| **Filter Shade Selection for Type of Welding** |
| **Operation** | **Electrode** **Size (mm)** | **Arc** **Current (A)** | **Min** **Shade** | **Suggested** **Shade** |
| Shielded Metal | < 2.5 mm | < 60 | 7 | \* |
| Arc Welding | 2.5 – 4mm 4 – 6.4mm > 6.4mm | 60 – 160 160 – 250 250 – 550 | 8 10 11 | 10 12 14 |
| Gas Metal Welding and Flux Cored Arc Welding | < 60 60 – 160 160 – 250 250 – 500 | 7 10 10 10 | \* 11 12 14 |
| Gas Tungsten Arc Welding | < 50 50 – 150 | 8 8 | 10 12 |
| Air Carbon Arc Cutting | 150 – 500 < 500 500 – 1000 | 10 10 11 | 14 12 14 |
| Torch Brazing | 3 or 4 |
| Torch Soldering | 2 |
| Carbon Arc Welding | 14 |
| Gas Welding (plate under 1/8" thick, light) | 4 or 5 |
| Gas Welding (plate 1/8" to 1/2" thick, medium) | 5 or 6 |
| Gas Welding (plate over 1/2" thick, heavy) | 6 or 8 |
| Oxygen Cutting (plate under 1" thick, light) | 3 or 4 |
| Oxygen Cutting (plate 1" to 6" thick, medium) | 4 or 5 |
| Oxygen Cutting (plate over 6" thick, heavy) | 5 or 6 |
| \*As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade, which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the operation. |
| **Note:** Workers with prescription lenses are not exempt from wearing proper eye protection. |