**Guide to Welding Shades Numbers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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. | | | | |