

TABLE 2. FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operations	Electric Size 1/32 in.	Arc Current (amps)	Minimum* Protective Shade
Shielded metal arc welding	Less than 3	Less than 60	7
	3 - 5	60 - 160	8
	5 - 8	160 - 250	10
	More than 8	250 - 550	11
Gas metal arc welding and flux cored arc welding		Less than 60	7
		60 - 160	10
		160 - 250	10
		250 - 500	10
Gas Tungsten arc welding		Less than 50	8
		50 - 150	8
		150 - 500	10
Air carbon Arc cutting	Light	Less than 500	10
	Heavy	500 - 1000	11
Plasma arc welding		Less than 20	6
		20 - 100	8
		100 - 400	10
		400 - 800	11
Plasma arc cutting	Light**	Less than 300	8
	Medium**	300 - 400	9
	Heavy**	400 - 800	10
Torch soldering Torch brazing Carbon arc welding			2
			3
			14

Operations	Plate Thickness – inches	Thickness – mm	Minimum * Protective Shade
Gas Welding: -Light -Medium -Heavy	Under 1/8	Under 3.2	4
	1/8 to 1/2	3.2 to 12.7	5
	Over 1/2	Over 12.7	6
Oxygen Cutting: -Light -Medium -Heavy	Under 1	Under 25	3
	1 to 6	25 to 150	4
	Over 6	Over 150	5

* 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 (spectrum) operation.

** These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the workpiece.