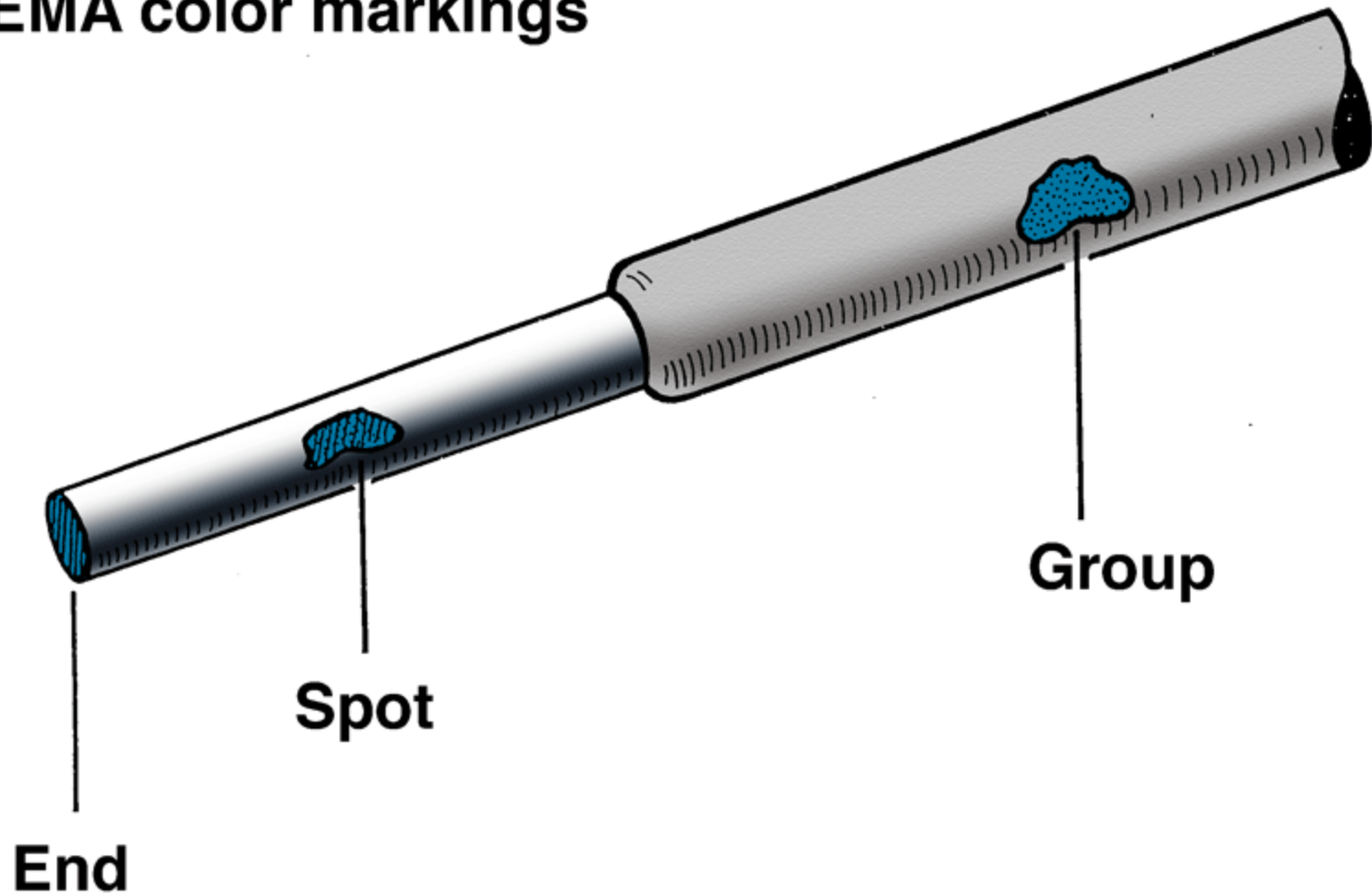


Electrode Color Markings

NEMA color markings

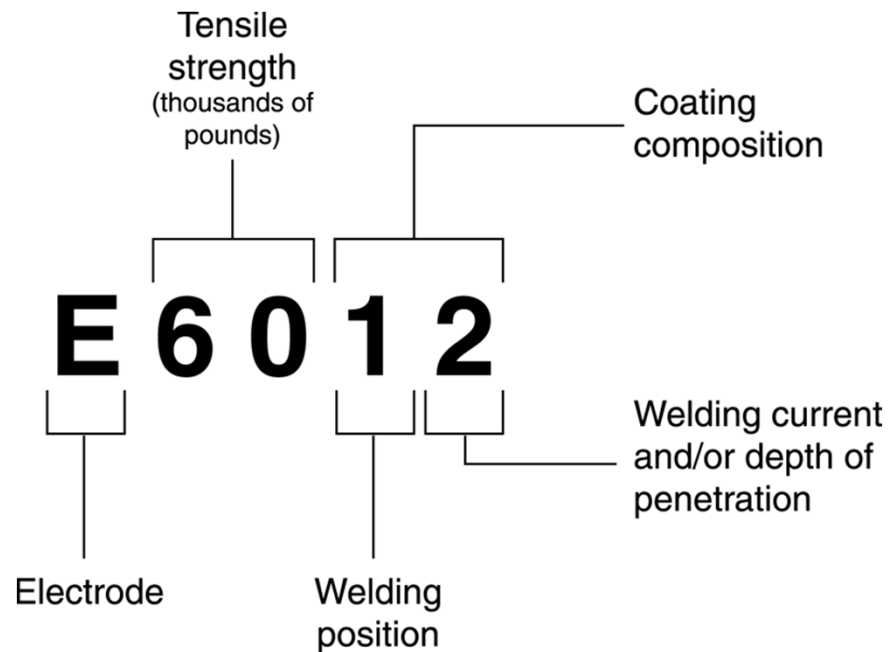


AWS Classification and Designators

AWS classification marked on electrode



Breakdown of designators



Electrode Classification

Table I
Electrode Classification

AWS Classification	Type of Covering	Welding Position ^A	Type of Current ^B
E6010	High cellulose sodium	F,V,OH,H	dcep
E6011	High cellulose potassium	F,V,OH,H	ac or dcep
E6012	High titania sodium	F,V,OH,H	ac or dcen
E6013	High titania potassium	F,V,OH,H	ac, dcep, or dcen
E6019	Iron oxide titania potassium	F,V,OH,H	ac, dcep, or dcen
E6020	High iron oxide	{ H-fillets F	ac or dcen ac, dcep, or dcen
E6022 ^C	High iron oxide	F,H	ac or dcen
E6027	High iron oxide, iron powder	{ H-fillets F	ac or dcen ac, dcep, or dcen
E7014	Iron powder, titania	F,V,OH,H	ac, dcep, or dcen
E7015	Low hydrogen sodium	F,V,OH,H	dcep
E7016	Low hydrogen potassium	F,V,OH,H	ac or dcep
E7018	Low hydrogen potassium, iron powder	F,V,OH,H	ac or dcep
E7018M	Low hydrogen iron powder	F,V,OH,H	dcep
E7024	Iron powder, titania	H-fillets, F	ac, dcep, or dcen
E7027	High iron oxide, iron powder	{ H-fillets F	ac or dcen ac, dcep, or dcen
E7028	Low hydrogen potassium, iron powder	H-fillets, F	ac or dcep
E7048	Low hydrogen potassium, iron powder	F,OH,H,V-down	ac or dcep

Notes:

A. The abbreviations indicate the welding positions as follows:

F = Flat

H = Horizontal

H-fillets = Horizontal fillets

V-down = Vertical with downward progression

V = Vertical

OH = Overhead

{ For electrodes 3/16 in. (4.8 mm) and under, except 5/32 in. (4.0 mm) and under for classifications E7014, E7015, E7016, E7018, and E7018M.

B. The term “dcep” refers to direct current electrode positive (dc, reverse polarity). The term “dcen” refers to direct current electrode negative (dc, straight polarity).

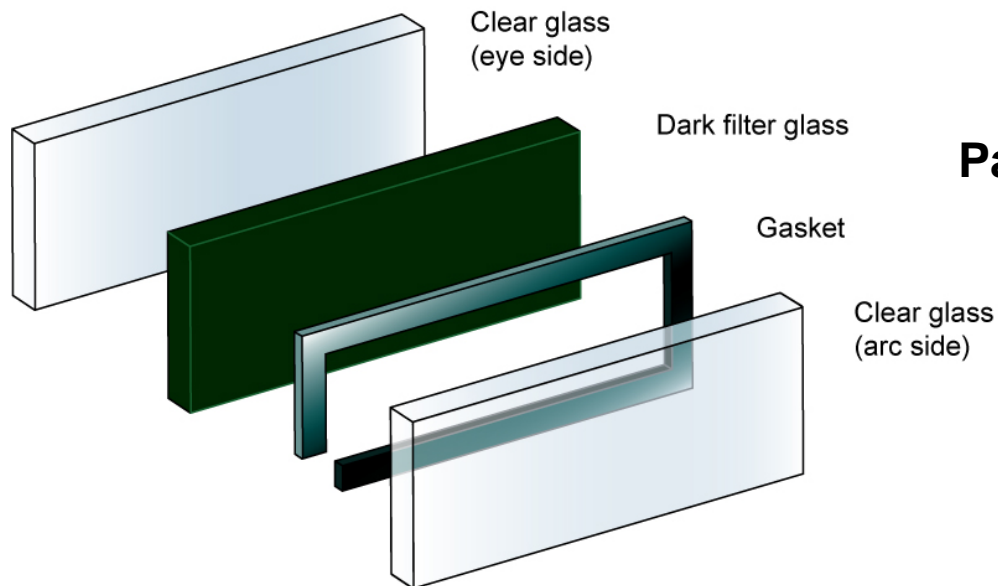
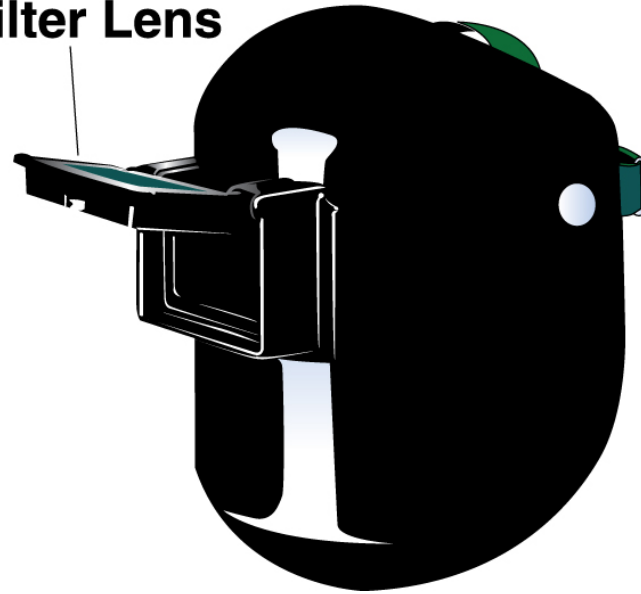
C. Electrodes of the E6022 classification are intended for single-pass welds only.

Source: American Welding Society (AWS) Committee on Filler Metal, 1991, Specification for Carbon Steel Electrodes for Shielded Metal Arc Welding, ANSI/AWS A5.1-91, Miami: American Welding Society, Table 1.

Protective Eyewear

Welding helmet with flip-up lens

Filter Lens



Parts of welding helmet lens