

Table 10
Moisture Content Limits in Electrode Coverings

AWS Classification	Electrode Designation	Limit of Moisture Content, % by Wt., Max.	
		As-Received or Conditioned ^a	As-Exposed ^b
E7015	E7015	0.6	Not specified
E7016	{ E7016		
	{ E7016-1		
E7018	{ E7018		
	{ E7018-1		
E7028	E7028	0.3	0.4
E7048	E7048		
E7015	E7015R		
E7016	{ E7016R		
	{ E7016-1R		
E7018	{ E7018R		
	{ E7018-1R		
E7028	E7028R	0.1	0.4
E7048	E7048R		
E7018M	E7018M		

Notes:

a. As-received or conditioned electrode coverings shall be tested as specified in Section 15, Moisture Test.

b. As-exposed electrode coverings shall have been exposed to a moist environment as specified in 16.2 through 16.6 before being tested as specified in 16.1.

chamber without delay after the packages are opened.

(3) The electrodes shall be placed in the chamber in a vertical or horizontal position on 1 in. (25 mm) centers, with the length of the electrode perpendicular as practical to the general air flow.

(4) Time, temperature, and humidity shall be continuously recorded for the period that the electrodes are in the chamber.

(5) Counting of the exposure time shall start when the required temperature and humidity in the chamber are established.

(6) At the end of the exposure time, the electrodes shall be removed from the chamber and a sample of the electrode covering taken for moisture determination, as specified in Section 15, Moisture Test.

16.6 The manufacturer shall control other test variables which are not defined, but which must be controlled to ensure a greater consistency of results.

17. Diffusible Hydrogen Test

The smallest and largest sizes of the electrode of each classification to be designated by an optional

supplemental diffusible hydrogen designator and all sizes of E7018M, shall be tested according to one of the methods given in ANSI/AWS A4.3 *Standard Methods for Determination of the Diffusible Hydrogen Content of Martensitic, Bainitic, and Ferritic Steel Weld Metal Produced by Arc Welding*. Testing shall be done without "conditioning" of the electrode, unless the manufacturer recommends otherwise. If the electrodes are conditioned, that fact, along with the method used for conditioning, and the time and temperature involved in conditioning, shall be noted on the test record. The diffusible hydrogen designator may be added to the classification according to the average test value as compared to the requirements of Table 11.

For purposes of certifying compliance with diffusible hydrogen requirements, the reference atmospheric condition shall be an absolute humidity of 10 grains of water vapor per pound (1.43 g/kg) of dry air at the time of welding. The actual atmospheric conditions shall be reported along with the average value for the test according to ANSI/AWS A4.3. (See Appendix, A9.2)

When the absolute humidity equals or exceeds the reference condition at the time of preparation of