

AMS 7275

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Revised

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- 4.2.2.3 Tensile Stress at 50% Elongation, psi, min To be reported
- 4.2.2.4 Bend (flat) No cracking
- 4.2.2.5 Volume Change, % 0 to +10
- 4.2.2.6 Decomposition None
- 4.2.2.7 Surface Tackiness None
- 4.2.2.8 Procedure: Place 140 ml of test fluid in 38 mm OD x 300 mm long test tubes at room temperature. Immerse test tubes in the heating medium so that 2 in. of each tube extends above the level of the heat transfer oil in oil bath heaters or so that 1 in. of each tube extends above the top insulation of aluminum block or air well heaters. Heat the test fluid to 300 F $\pm$ 2. For rings 1 in. and under in ID, hang three rings in each tube from corrosion resistant steel wire or wires so that the top points of the rings will be 1, 2-1/2, and 4 in. below the surface of the test fluid. For rings over 1 in. but not over 3 in. ID, cut segments from each of three rings, form to 1 in. ID rings, securing the ends of the segments with corrosion resistant steel wire, and hang as for complete rings. For rings over 3 in. ID, cut 5 in. long segments from each of three rings. Hang each segment by a corrosion resistant steel wire so that the segments do not touch each other or the walls of the test tube and so that the mid-length of each segment is at the approximate mid-depth of the test fluid. Stopper the test tubes with new, bare cork stoppers 1-1/2 in. thick having two 8 mm OD glass tubes through the cork, one 3 in. long extending 1 in. below the bottom of the cork and one 5-1/2 in. long extending 3-1/2 in. above the top of the cork. Force the wire or wires from which the rings are hung into the bottom of the cork before inserting in the test tube. After the immersion period, suspend the rings in fresh test fluid at room temperature and allow to cool in this fluid for approximately 30 min., remove the rings, rinse them briefly in acetone, and blot lightly with filter paper. Determine changes in properties, using the water displacement method for measuring volume change. Report results as the average of the properties for the three specimens.
- 4.2.3 Aromatic Fuel Resistance: ASTM D471-55T
(Immediate Deteriorated Properties) Medium: ASTM Ref. Fuel B
Temperature: 70 - 85 F
Time: 70 hr
Prepare specimens as in 4.2.2.8
- 4.2.3.1 Tensile Strength Change, %, max -50, but shall be not lower than 500 psi
(based on area before immersion)
- 4.2.3.2 Elongation Change, %, max -40
- 4.2.3.3 Volume Change (Method A), % +10 to +30
- 4.2.3.4 Volume Change (Method A), %, max -5
(after 70 hr immersion in 30% aromatic fuel followed by 48 hr drying at 158 F $\pm$ 2) (based on unimmersed volume)