Standard Test Method ASTM D3806
SPECIMENS 3mm Clear Plastic Panel
Three coats Flame Safe Fire Poly FPCC applied at 250 sq. ft /gallon (final coverage rate 83.33 sq.ft / gallon)

CALCULATION:

Calculate the experimental flame-spread rating using the following equation (ASTM D3806 Test Method):

\[ F_{SE} = \frac{(L_s - L_a)}{L_R - L_a} \times F_{SR} \]

where:

- \( F_{SE} \) = flame spread of specimen,
- \( L_s \) = mean of three flame advance readings of specimen, inches, \((10, 10.50, 9.50) = 10\).
- \( L_a \) = mean of three flame advance reading of zero flame-spread standard, inches, \((8.5, 8.5, 8.5) = 8.5 \) (Cement Board)
- \( L_R \) = mean of three flame advance readings of rated standard, inches, \((16.5, 16.5, 16.5) = 16.5 \) (Red Oak) and
- \( F_{SR} \) = flame-spread rating of rated standard = 100

To Calculate Projected ASTM E84 Flame Spread Rating (based on the ASTM D3806 Test Method) use the following equation:

\[ F_{SE} + 4.8 \times 0.95 = F_{S84} \] (Round to Nearest Whole Number)

\[ F_{SE} = \frac{10-8.5}{16.5 - 8.5} \times 1.5 \times 100 = 18.75 + 4.8 \times 0.95 = 22.37 \text{ Round to nearest whole number} \]

Predicted E84 Flame Spread is 22

Project number: 100118-1