

Corrections

Corrections given by author before doctoral dissertation at 26.11.2015:

Eqs. (9.14), (9.15) and (9.17) in pages 60-61: n^2 should be added as a first term in the right side of equality sign. Where n is the refractive index of glass, and n^2 considers that incident diffuse radiation travels in glass. The results in Table (9.1) in page 62 are solved from the corrected form of Eq. (9.17).

Eqs. (9.22) in page 62: divider 2 should be taken off: The results in Table (9.1) in page 62 are solved from the corrected form of Eq. (9.22).

Eq. (11.1) in page 78: $(1-\alpha_u)^2$ should be taken off. Eq. (11.2) in page 79: $(1-\rho_u)$ in the second row should be taken off, $[1+(1-\alpha_u)]\rho_u$ in the fifth row should be taken off, and $(1-\alpha_u)^2$ in the last row should be replaced with $(1-\rho_l)$. Thus, the corrected form of Eq. (11.2) is:

$$S_{0-x_1} = \sum_{i=1, j=2}^{i=2, j=k+1} \left\{ \begin{array}{l} \left[F_b(\lambda_i, \lambda_j, T_{\infty, u}) \sigma T_{\infty, u}^4 - F_b(\lambda_i, \lambda_j, T) \sigma T^4 \right] \times \\ \left\{ \begin{array}{l} \alpha_u + (1 - \rho_u - \alpha_u) \left[1 - e^{-\kappa_\lambda x_1 / \cos \theta'_m} \right] + \\ (1 - \rho_u - \alpha_u) \rho_l \left[e^{-\kappa_\lambda (2L - x_1) / \cos \theta'_m} - e^{-\kappa_\lambda 2L / \cos \theta'_m} \right] + (1 - \rho_u - \alpha_u) \rho_l e^{-\kappa_\lambda 2L / \cos \theta'_m} \alpha_u \end{array} \right\} + \\ \left[F_b(\lambda_i, \lambda_j, T_{\infty, l}) \sigma T_{\infty, l}^4 - F_b(\lambda_i, \lambda_j, T) \sigma T^4 \right] (1 - \rho_l) \times \\ \left\{ \begin{array}{l} e^{-\kappa_\lambda L / \cos \theta'_m} \alpha_u + \left[e^{-\kappa_\lambda (L - x_1) / \cos \theta'_m} - e^{-\kappa_\lambda L / \cos \theta'_m} \right] + \\ \rho_u \left[e^{-\kappa_\lambda L / \cos \theta'_m} - e^{-\kappa_\lambda (L + x_1) / \cos \theta'_m} \right] \end{array} \right\} \end{array} \right\}$$

The result figures in pages 80-82 and 111 relating to low-e coated glass are based on the corrected forms of Eqs. (11.1) and (11.2).

Corrections given due to public examination and criticism:

Nomenclature page vi, ideal gas constant R_u : unit is wrong. Correct unit is [J/(mol K)].

Standard EN12150-1 in page 13-14: Reference is [54]. Notice that the standard draft has evolved and has been published as a standard in 2015. Now it includes also following values: Minimum particle count in Table (3.3) for nominal thickness of 2 mm = 15, maximum wave distortion for 2-12 mm tempered glass manufactured with air cushion technology = 0.3 mm, and maximum perimeter deformation for 2-12 mm tempered glass manufactured with air cushion technology = 0.3 mm. The perimeter deformation measurement replaces the edge lift measurement for glass manufactured with air cushion technology. In the perimeter deformation measurement a 100 mm straight edge is laid on the glass at right angles to the edge. The gap between the straight edge and the glass is measured using a feeler gauge. The perimeter deformation is the maximum gap. New maximum glass thickness is 25 mm for which the limiting values in the standard are the same as for old maximum 19 mm.

Eq. (7.2) in page 41: r should be added inside the brackets in the right side of equality sign.

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