



**Hybrid Surface Roughness**

Line:  $R_v + R_{mode} \times R_{ku} \times R_{sk}$   
 Area:  $S_v + S_{mode} \times S_{ku} \times S_{sk}$

**Effective notch**

(i) Layer thickness,  $t$   
 (ii) Effective radius of curvature,  $\bar{\rho}$

**Effective elastic stress concentration factor**

$$\bar{K}_t = 1 + n \left( \frac{R_v + R_{mode} \times R_{ku} \times R_{sk}}{\bar{\rho}} \right)$$

