0.1 title : KD-232 Equations

1 KD-232.1

$$\sigma_e = \frac{1}{\sqrt{2}} \cdot \left(\left(\sigma_1 - \sigma_2 \right)^2 + \left(\sigma_2 - \sigma_3 \right)^2 + \left(\sigma_3 - \sigma_1 \right)^2 \right)^{0.5}$$

2 KD-232.2

$$\epsilon_{Lk} = \epsilon_{Lu} \cdot e^{\frac{-m_5}{1+m_2} \cdot \left(\frac{\sigma_{1k} + \sigma_{2k} + \sigma_{3k}}{3 \cdot \sigma_{ek}} - \frac{1}{3} \right)}$$

3 KD-232.3

$$\Delta\epsilon_{peqk} =$$

$$\frac{\sqrt{2}}{3} \cdot \left(\left(\Delta\epsilon_{p11k} - \Delta\epsilon_{p22k} \right)^2 + \left(\Delta\epsilon_{p22k} - \Delta\epsilon_{p33k} \right)^2 + \left(\Delta\epsilon_{p33k} - \Delta\epsilon_{p11k} \right)^2 + 1.5 \cdot \left(\Delta\epsilon_{p12k}^2 + \Delta\epsilon_{p23k}^2 + \Delta\epsilon_{p31k}^2 \right) \right)^{0.5}$$

4 KD-232.4

$$D_{\epsilon k} = \frac{\Delta\epsilon_{peqk}}{\epsilon_{Lk}}$$

5 KD-232.5

$$D_{\epsilon form} = \frac{\epsilon_{cf}}{\epsilon_{Lu} \cdot e^{\left(-\frac{1}{3} \right) \cdot \frac{m_5}{1+m_2}}}$$

6 KD-232.6

$$D_{\epsilon t} = D_{\epsilon form} + D_{\epsilon}$$