

# DIRECT STUDY

## PR 808 FORMABILITY OF SHEET METALS

Plastic working of metals – Formability of sheet metals – Forming Limit Diagram (FLD) – Super plastic forming.

Classification of materials – Mechanical properties of metals.

Plastic instability – Strain hardening / Work hardening – Strengthening mechanisms – Cold working and recrystallization.

Workability of bulk metals – Workability diagrams – Fracture of metals.

Plastic instability of Bi-axial Tension – Yield criteria

### REFERENCES

1. Geller Y.A and Rakhshadr "Science of Materials", MIR Pub, 198.6
2. Narayanasamy R., "Theory of Plasticity", Ahuja publications, 2000.
3. S.Kalpajian, "Manufacturing Processes for Engineering Materials", Addison Wesley Pub Co, 1997.
4. Hu, Jack, Zdzislaw Marciniak, and John Duncan, "Mechanics of sheet metal forming", Butterworth-Heinemann, 2002.

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Research Guide

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