

11.22 We are asked for the approximate temperature at which several iron-carbon alloys should be austenitized during a full-anneal heat treatment.

- (a) For 0.20 wt% C, heat to about 890°C (1635°F) since the A_3 temperature is 840°C (1545°F).
- (b) For 0.60 wt% C, heat to about 800°C (1470°F) since the A_3 temperature is 750°C (1380°F).
- (c) For 0.76 wt% C, heat to about 777°C (1430°F) since the A_1 temperature is 727°C (1340°F).
- (d) For 0.95 wt% C, heat to about 777°C (1430°F) since the A_1 temperature is 727°C (1340°F).