



## CASE STUDY:

### ARMORMAX® 70 SR SILL AND JAMB APPLICATIONS IN BOX-TYPE FORGING FURNACES

#### EQUIPMENT

Box-type forging furnaces

#### PRODUCT

- ARMORMAX 70 SR precast shapes
- ARMORMAX 70 SR cast in situ

#### APPLICATION

- Shapes: 12' x 12' box furnaces operated at 2200°F
- Cast in situ: 12' x 16' box furnace operated at 2350°F

#### INSTALLATION

- Precast jamb, sill and hearth shapes installed in various furnaces at intervals, replacing a 60% alumina low-cement castable, **now more than 4 years old**
- Forge furnace sill was cast during new furnace installation, **still in service after more than 3 years**

#### RESULTS

- Jamb and sill shapes have required no repairs and have shown few signs of cracking and abrasion
- Sill in light forge furnace has required no repairs while resisting scale attack and mechanical abrasion

#### CONCLUSIONS

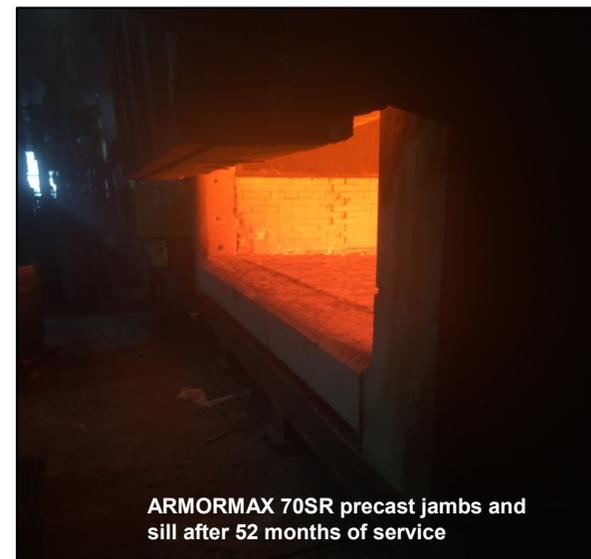
- The use of **precast** jamb, sill and hearth shapes has resulted in significant reductions in maintenance repairs and man-hours.
- This operation has experienced extended performance with the use of ARMORMAX 70 SR in pier blocks and a car bottom furnace deck refractory perimeter.
- The performance of the **cast** ARMORMAX 70 SR sill has led to using the refractory in furnace jambs and a car deck perimeter with excellent results.



ARMORMAX 70 SR sill and jamb shapes after 6 months of service



ARMORMAX 70 SR forge furnace cast sill after 18 months of service



ARMORMAX 70SR precast jamba and sill after 52 months of service