

# Solutions for Hard Material and Mill Roll Machining with Ceramics

## Alumina + TiC Ceramics

- High-hot hardness and low plasticity
- Toughness & hardness

### ZC4



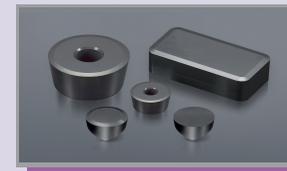
- **Features**
  - TiN coated premium finest grain ceramic
  - Excellent wear resistance
  - Best for hard turning applications from 50-70Rc
  - Superior finish turning
- **Work Materials**
  - Steels
  - Gray cast iron rolls

### ZC7



- **Features**
  - TiN coating
  - Excellent wear resistance
  - Machining soft to hard turning applications (50-62RC)
  - Semi-finish and finish cast irons and chilled irons
- **Work Materials**
  - Steels
  - Cast iron rolls
  - Chilled iron rolls

### HC2



- **Features**
  - Balance of abrasion and fracture resistance
  - Semi finishing and finishing cast iron and hardened steels
- **Work Materials**
  - Steels
  - Cast rolls
  - Ductile rolls

### WA1



- **Features**
  - Flank wear resistance and notching resistance
  - Machines through hard spots (even embedded insert pieces)
  - Milling of hardened materials (45-65Rc)
- **Work Materials**
  - Carbide rolls
  - Cast iron rolls
  - Steels

### HC7



- **Features**
  - Excellent wear resistance
  - Turning of hardened steels (35-62Rc)
  - Wide range of machining even through interruptions
  - Milling hardened steels (45-62Rc)
- **Work Materials**
  - Ductile iron rolls
  - Chilled iron rolls
  - Steels

### HC5

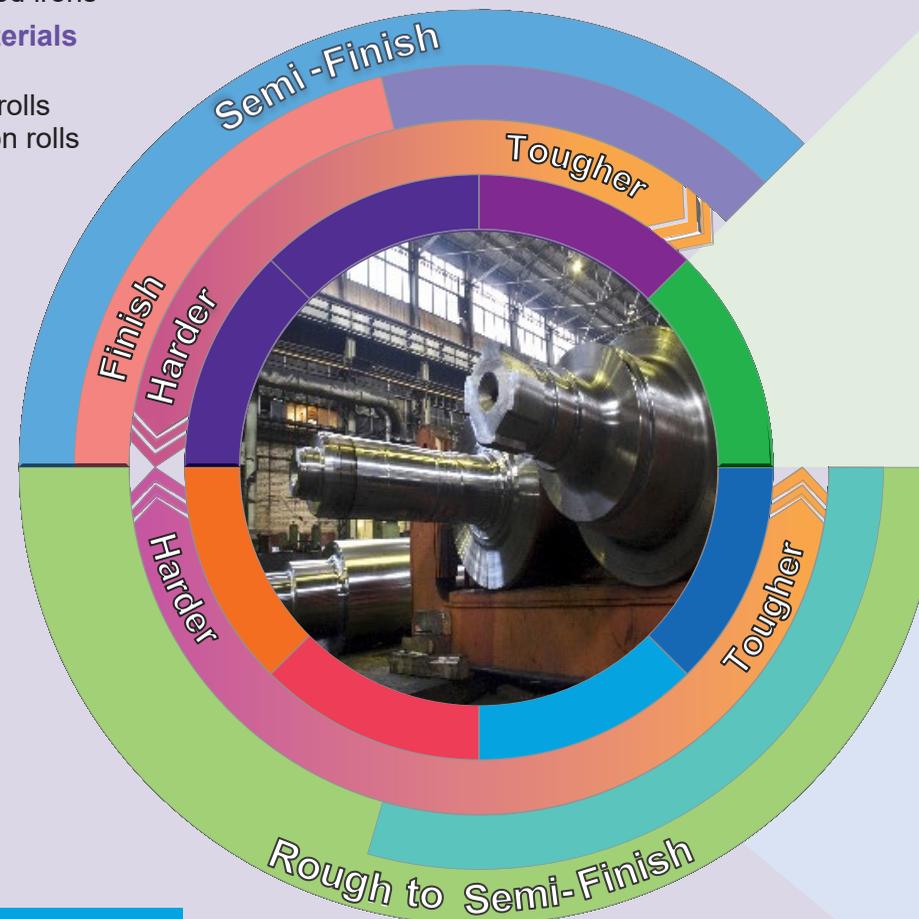


- **Features**
  - Excellent toughness and wear resistance
  - Semi finishing of cast and hardened steels (35-62Rc)
  - Machine through scale and interruptions
- **Work Materials**
  - Cast iron rolls
  - Steels
  - CPM rolls (Hitachi rolls)

### SX9



- **Features**
  - Excellent toughness and notch wear resistance
  - Semi-finishing of cast and ductile rolls
  - Turning and milling applications
  - Machine hard materials (35-46Rc)
- **Work Materials**
  - Cast iron rolls
  - Ductile iron rolls



## Whisker - Versatile Player

- Productivity and reliability

## SiAlON Ceramic

- Toughness and wear resistance