

## Wear Materials Part II

When it comes to industrial environments there is no one-size-fits-all solution, but C.L. Smith Industrial Company can be your one-stop wear solution provider. We offer a wide range of materials to choose from when looking for the “Right Material”.

### Silicon Carbides

Nitrite bonded (NBSC) and reaction bonded (RBSC) silicon carbide can be manufactured in a wide variety of complex shapes and sizes with maximum use temperatures over 2,000° F. High thermal shock resistance, good corrosion resistance with enhanced mechanical and electrical properties makes these materials an excellent choice where odd or monolithic shapes are required.

#### Advantages:

- High thermal shock resistance
- Maximum use temperatures over 2,000°F
- Low Porosity (RBSC)
- Good corrosion resistance

### Tungsten Carbide

Our industry proven grade tungsten carbide is a mixture of fine and coarse grain materials with a specific percent of a cobalt bonding system to produce an exceptional combination of toughness and wear resistance.

#### Advantages:

- Can be brazed or bonded with a variety of adhesives to provide excellent wear life.
- Used sparingly with other wear materials, an optimum balance of wear life, weight and cost can be achieved.
- Brazed tungsten can be used in environments over 1,000°F.
- Hardness > 91 HRA



## Thermal Sprays

Versatile and economical mechanically bonded coating system for wear resistance, corrosion resistance and to improve equipment performance. With a wide variety of materials to choose from tungsten carbides, chromium carbides and alumina oxides your components can be protected to meet any need.

### Advantages:

- Thin (~0.020") coating retains substrate geometry and physical properties while providing good wear life
- Strong bond with excellent high temperature resistance
- Machinable to return component to original form
- Complex shapes uniformly coated
- Monolithic abrasion resistant coating with no seams or gaps

## Chromium Carbide Overlay (CCO)

Any formed, fabricated, and welded steel component can have our 60 Rockwell C hardness CCO applied allowing for an unlimited combination of shapes, sizes, impact or high wear zones. An economical wear solution where entire components can be fabricated from sheets of CCO or used as replaceable wear panels.

### Advantages:

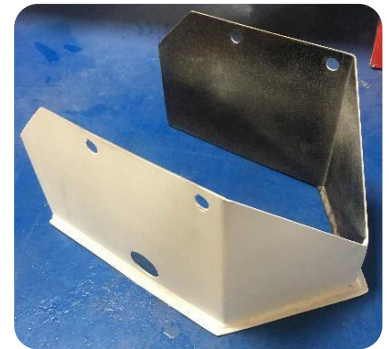
- Good for impact zones and high temperature applications

## AR Plate and Pipe

From 400 to 600 BHM this material can be cut, formed, drilled, punched, welded using common fabrication equipment. Entire components like the cyclone barrel shown can be fabricated and painted from these materials.

### Advantages:

- Economical wear solution from readily available materials



During planning and design phases of any project there are many factors to consider and wear materials are no different. Let C.L. Smith Industrial Company help you make the make the "Right Choice" for your wear product needs!