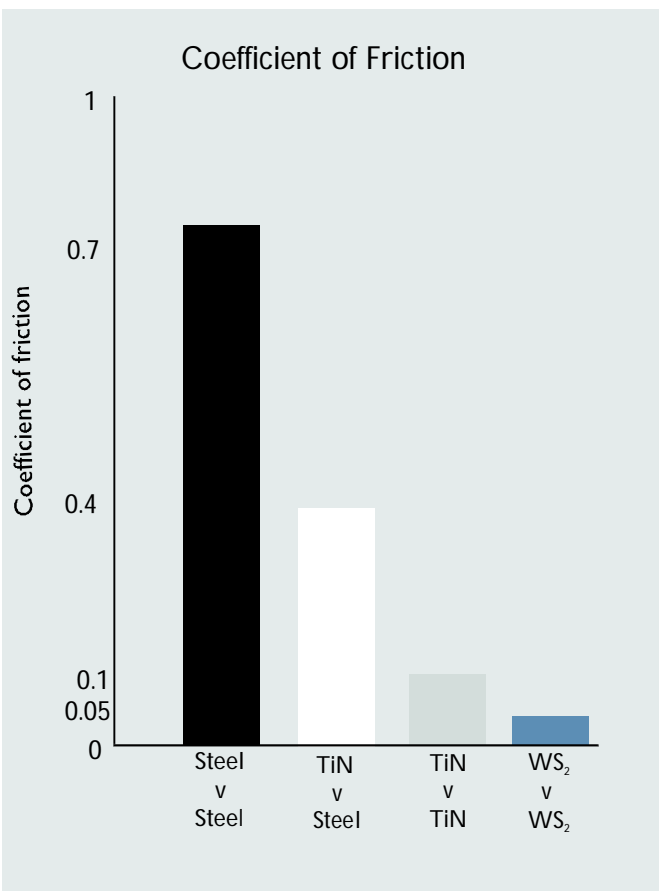
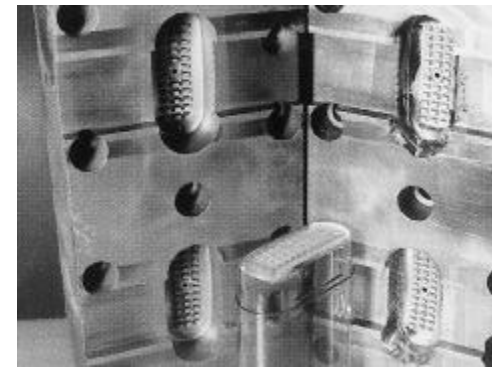


## WS<sub>2</sub>

Tungsten Disulphide is a very low friction coating applied at room temperature. Originally developed by NASA as a dry lubricant for spacecraft components operating in a vacuum. The applied coating follows the geometry of the tool or component with no build up on edges. It can be used on all metals and even some plastics. WS<sub>2</sub> can be used on heat treated components and over many engineering coatings. Items up to 2000kg may be treated.

### Typical Properties:

|                         |  |
|-------------------------|--|
| Coating Thickness       | 0.5um  |
| Hardness                | 30Rc   |
| Coefficient of Friction |  |
| <i>Dynamic</i>          | 0.030  |
| <i>Static</i>           | 0.070  |
| Colour                  | Grey   |
| Max Operating Temp      |  |
| <i>Air</i>              | -273°C to 650° C   |
| <i>Vacuum</i>           | -188°C to 1316° C  |
| Chemical                | <i>Inert, non toxic. Compatible with solvents, fuels and lubricant oils.</i> |



### Applications

Tungsten Disulphide dry lubricant coating gives the greatest gains in performance in sliding wear applications, notably reducing galling, fretting and friction. The following are typical applications.

- Plastic Moulding -- enhances flow & aids release
- Motorsport bearings & gearboxes -- reduces power losses & wear
- Zinc die casting -- prevents seizing of ejectors and moving parts
- Vacuum & cryogenic -- low friction dry lubricant with low out gassing
- Cutting and forming tools -- extends working life
- Threaded & splined components -- reduces fretting, galling & seizing
- Marine applications -- long term lubricant in sea water

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