

## CrN

Chromium Nitride is a bright silver/greycoloured ceramic coating applied to metallic surfaces by the physical vapour deposition (PVD) process. The coating has high hardness and excellent toughness combined with good resistance to oxidation.

Tecvac produce CrN coatings using a process of electron beam evaporation under vacuum at a workpiece temperature of about 480 deg C. This method of manufacture results in coatings which are very smooth and require no post coating processing.

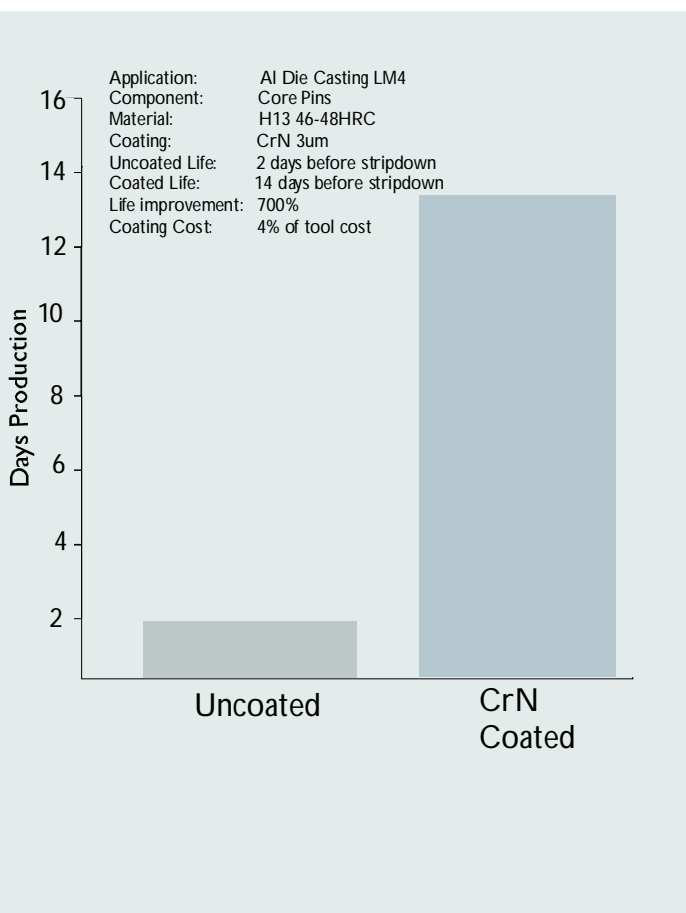
## Typical Properties:

Coating Thickness	1-4um
Hardness	2000Hv
Melting Point	2800 deg C
Max Operating Temp	600 deg C



## Applications

- Die Casting -- Cores and Cavities
- Machining of Non-Ferrous Metals
- Deep Drawing -- Aluminium and Copper
- Coining



CrN coatings are widely used as an alternative to titanium based coatings such as TiN in applications involving the cutting and forming of non-ferrous materials.

The coating is resistant to corrosion and adhesive wear. CrN is also effective in reducing erosion and heat checking in aluminium and zinc die casting. CrN resists oxidation up to 600 deg C compared with 480 deg C for TiN coatings.

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