

# 发动机零件涂层解决方案

Coating Solutions for Engine Components

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由于发动机小型化、高功率和排放标准的不断提高，发动机零部件承受的摩擦越来越大，磨损越来越严重，传统的材料和表面处理手段已经很难满足发动机正常工作需求，与此同时PVD涂层表面技术逐渐成为解决此类问题的最重要手段。星弧涂层为汽车零部件领域专门开发的DLC系列涂层，是这类应用的最佳解决方案。

Crediting to the progress of technology, engines today comprise of properties such as being lightweight, compact and having low emission levels. Wear and tear of the engines' components, however, has become a major issue to be overcome. While conventional materials and surface treatment employed in engines are unable to provide sufficient protection against wear and tear, PVD coatings, which has higher hardness and lower friction properties, provide ideal solutions. Stararc's DLC series coatings are specifically designed for the valve-trains in engines, reducing fuel consumption and prolonging engine life cycle.

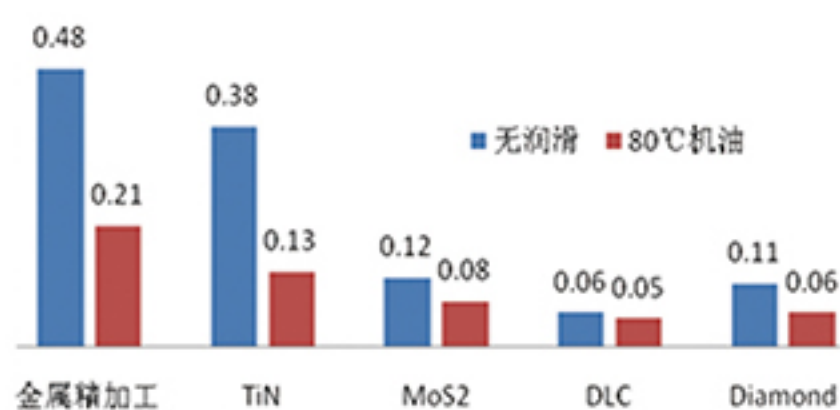
## 涂层性能特点Coating Functions:

- ◆ 涂层厚度可以达到10um
- ◆ 涂层硬度大于2500Hv
- ◆ 涂层摩擦系数低至0.06
- ◆ 耐热温度超过400°C
- ◆ Thickness - above 10um
- ◆ Hardness - 2,500Hv
- ◆ Coefficient of friction- 0.06
- ◆ Thermal stability- 400°C

## 典型应用Typical Applications:

- ◆ 活塞环
- ◆ 活塞销
- ◆ 挺柱
- ◆ Piston rings
- ◆ Plungers
- ◆ Valve tappets

### 不同表面处理相同工况摩擦系数



### 各机构涂层前后占发动机摩擦功耗

