

# "KILLER BEE" COPPER INFILTRATED VALVE SEAT INSERTS



## DESCRIPTION and APPLICATION

GM is equipping the LS3 heads with high tech sintered copper-infiltrated valve seats. High-Performance European engines like BMW and Mercedes also use this technology. This is a powder metal valve seat with a copper wafer that is infiltrated into the valve seat. This creates a unique product of 15% free copper in the microstructure of the seat. Allowing heat to be quickly transferred and performance greatly improved.

- Offers superior thermal conductivity
- Excellent machining characteristics
- Lowest wear - Improved reliability/durability
- High thermal expansion
- Superior surface finishes
- Suitable for HD intake and exhaust seats, gas and diesel
- Compatible with most valve materials



**"Killer Bee"  
Valve Seat**

## CHEMICAL COMPOSITION

### "Killer Bee"

### GM LS-3

Tungsten	3.0	3.68
Molybdenum	3.375	2.5
Chromium	2.0	1.84
Vanadium	1.0	1.44
Carbon	1.0	0.84
Cobalt	0.28	0.24
Nickel	0.205	0.13
Manganese	0.35	0.58
Silicon	0.2	NA
Copper	15	14.45
(proprietary)	4.5	NA
Iron	bal.	bal.

## PHYSICAL PROPERTIES

Apparent Hardness	35 HRC (approx.)
Micro Hardness	50-56 HRC
Thermal Expansion	