

Better combustion with the right valve seats



Lead-free fuel places high demands on motor parts such as valve seats. To maintain a sealed combustion chamber, a wear-resistant valve seat material is vital.

Vanadis 23 provides a good combination of wear resistance and fatigue strength.

In cases where you want to maximize heat transfer, use the copper alloy **Moldmax**.

Characteristics

Vanadis 23	
<i>Delivery hardness & Maximum hardness</i>	Soft annealed to 260 HB on delivery, can be hardened to approx. 65 HRC
<i>Strength</i>	Delivery condition: $R_m=1020 \text{ N/mm}^2$, $R_{p0,2}=900 \text{ N/mm}^2$
<i>Toughness</i>	Unnotched approx. 45 J at 60 HRC
<i>Fatigue</i>	The clean material guarantees good fatigue
<i>Machinability</i>	For exact cutting data, see "cutting data recommendations"
Moldmax HH	
<i>Delivery hardness</i>	40 HRC
<i>Compressive Strength</i>	Delivery condition: $R_m=1280 \text{ N/mm}^2$, $R_{c0,2}=1070 \text{ N/mm}^2$, Elongation, $A_5: 5\%$
<i>Thermal conductivity</i>	110 W/m°C @ 20°C
<i>Specific heat</i>	380 J/kg°C
<i>Machinability</i>	Cutting data recommendations available in product brochure. Perform machining wet.