



Application: Orvar Supreme

Higher reliability with Orvar Supreme



The performance of a rally-cross car is sometimes extreme. Kenneth Hansen, 11-time European Champion, places high demands on the components in his car to perform the best at any given time. The powerful engine, over 600 bhp, increases the demands on the components. Kenneth Hansen has developed a drive shaft manufactured in tool steel from Uddeholm, **Orvar Supreme**.



The conventional steel grade is SS 2511, case-hardened, 60 HRC at the surface and softer in the middle. When starting, the enormous torque caused the shaft to twist and fracture. A maximum of three starts could be done before the shafts had to be changed.

The solution is a shaft manufactured in **Orvar Supreme** from Uddeholm, through-hardened to 48 HRC. The shaft can be used for 10-20 races before it has to be changed.

Characteristics

Orvar Supreme	
<i>Delivery hardness & Maximum hardness</i>	Soft annealed to 180 HB, maximum hardness approx. 55 HRC.
<i>Strength</i>	$R_m=1820 \text{ N/mm}^2$, $R_{p0,2}=1520 \text{ N/mm}^2$ at 52 HRC and 21 °C
<i>Toughness</i>	Charpy V approx. 15 J at 21 °C and 45 HRC
<i>Fatigue</i>	The clean material guarantees good fatigue