

# Uddeholm Powder Metallurgical Tool Steel Special Heat Treatment Guidelines for Vanadis Grades

## For Optimum Wear Resistance

P/M Steel Grades	VANADIS 4 EXTRA	VANADIS 8
Hardening Temp. °F (°C)	2150 (1175)	2150 (1175)
Tempering Temp. °F (°C)	3x1000* (3x540)	3x1000* (3x540)
Hardness, HRC	63-65	62-64

## For Optimum Chipping Resistance

P/M Steel Grades	VANADIS 4 EXTRA	VANADIS 8
Hardening Temp. °F (°C)	1760 (960)	1870 (1020)
Tempering Temp. °F (°C)	3x1040* (3x560)	3x1070* (3x575)
Hardness, HRC	53-56	54-56

**Note:**

The choice of heat treatment has to be based on the specific requirements of the individual application.

\*Temper 1 hour once the tool is at temperature. Check hardness between tempers.

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should not therefore be construed as a warranty of specific properties of the products described or a warranty for fitness for a particular purpose. It is your responsibility to confirm you have the latest revision of this document (verify on our website) and that you forward to your Heat Treatment service provider. Failure to do so may result in inferior material properties. Revision Date: June 5, 2018