



## Introduction

UP-N is a composite wear plate developed on the basis of grain boundary strengthening theory. Grains refinement and multiple carbides precipitation caused by the addition of element niobium enhance the hardness as well as the tribological properties of the overlay so that UP-N has excellent performance against severe abrasion wear.

Abrasion

**Impact** 

Thermal stability

## **Composition & Properties**

С	Cr	Fe	Other	Hardness (HRC)	ASTM G65 Procedure A
≥ 3.8	≥ 15	Bal.	Nb	≥ 60	≤ 0.17

<sup>\*</sup> Hardfacing thickness over 6mm (Composition in wt%)

## **Description**

Characteristic	Data		
Standard Thickness* (mm)	Base material ≥ 4mm, Hardfacing ≥ 4mm		
Standard Size* (mm)	1,200 × 2,400 1,500 × 3,000 2,200 × 3,000		
Operation Temperature (°C)	≤ 450		
Machinability	EDM, Plasma, Laser cutting Stud bolt, Countersink, Gouging		
Formability	$R \ge 150$ (for 6+4, overlay inward)		
Base Plate*	Q235B (SS400, S235JR)		



## **UP GROUP**

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<sup>\*</sup> Customizable