

## I. Product Introduction

**Chromium carbide overlay steel plate** is resistant to both wear and impact, and withstands high temperatures. Recommended for resistance to wear by abrasion, fretting, cavitation, and particle erosion in high temperature applications (such as sinter plant and blast furnace working condition of metallurgical industry).

### \*HP300 (Resistance to high temperature abrasive wear)

HP300 **hard-faced wear-resistant steel plate** is suitable for high temperature abrasive wear and fine particles, small Angle, small energy impact wear conditions

Hard-facing layer main chemical composition of metal (Wt%)

C	Cr	Nb	Mn	Other
4~6	18~24	5~8	2~3	3~6

Hard-facing layer hardness: 60-65HRC

Wear resistant temperature: 800°C - 1050°C

## III Dimension

Model	Specification	Total Thickness	Size	Minimum curling radius
	Base material + wearing layer(mm)	(mm)	(W+L) mm	(mm)
HP100/ HP200/ HP300/ HP400	5+3	8±0.5	1400×3000	R≥150
	6+4	10±0.5	1400×3000	R≥150
	6+6	12±0.5	1400×3000	R≥150
	8+6	14±0.5	1400×3000	R≥250

	10+6	16±0.5	1400×3000	R≥300
	12+6	18±0.5	1400×3000	R≥300
	8+7	15±0.5	1400×3000	R≥250
	10+7	17±0.5	1400×3000	R≥300
	10+8	18±0.5	1400×3000	R≥300
	12+8	20±0.5	1400×3000	R≥350
	15+10	25±0.5	1400×3000	R≥350
	12+12	24±0.5	1400×3000	R≥350
	20+20	40±0.5	1400×3000	R≥350
	...	...	...	...
<p>Remark: 1. This minimum curling radius is subject to the wear-resisting layer turning inward , if wear-resisting layer turning outwards, the minimum curling radius shall be multiply by 2.</p> <p>2. We can also supply the special specification and size according to customer requirement.</p>				

#### IV. Performance Characteristics

- Excellent wear resistance: The wear layer thickness of the plate is 3-12mm, and wear layer hardness is 58-62 HRC. The plate abrasion resistance is 15 to 20 times more than the common steel plate, 5 to 10 times more than low alloy steel plate, 2 to 5 times more than high chromium cast iron. The wear resistance is much higher than that of spray welding and thermal spraying method.
- Superior high temperature resistance: Wear-resistant steel alloy carbide has a great stability under high temperature condition, so the plate can be used under 500 °C . The maximum temperature can be 1100°C, but the products need to customized according to requirements. The ceramics plate, polyurethane plate, high polymer materials plate that the pasted plate cannot be used under so high temperature.
- Good connection performance: The base material of our steel overlay plate is Q235 steel plate that can ensure the plate has good toughness and plasticity, and can offer the strength of resistance to external forces, also can connected other structures by welding, plug welding, bolt connection and other variety of ways. The connector is firm, and not easily to fall off. The connection ways are more than other materials.
- More choices: We can select different thickness plate to be the basic plate, can weld different number of layers and thickness of alloy wear layer, can get many kinds of steel plate with different thickness and function. The plate maximum thickness can be up to 50mm.

- Excellent mechanical property: the chromium carbide overlay plate can be produced to different specifications and sizes according to the requirements and can be welded and formed on site, which makes the maintenance and replacement work more easy and saves more time.