



JFE

JFE EVERHARD™ EH-SP

JFE's Super Abrasion-Resistant
Steel Plate



JFE Steel Corporation

What's new

JFE-EH-SP

Excellent abrasion resistance without sacrificing formability and weldability.

Until now, wear resistance was created with increasing hardness which consequently reduces formability and weldability. After extensive research for years, JFE succeeded in developing excellent abrasion resistant steel, JFE-EH-SP. By utilizing extremely hard precipitates “Titanium Carbide”, excellent wear resistance of JFE-EH-SP has been achieved without increasing hardness.

Highly improved abrasion resistance

Almost same weldability and formability as conventional JFE-EH500

Specification

Chemical composition

Grade	Available thickness mm	Heat treatment	Chemical composition %									
			C	Si	Mn	P	S	Cr	Mo	V	Ti	B
JFE-EH-SP	5~65	Controlled Heat Treatment	0.35 max.	0.55 max.	1.60 max.	0.030 max.	0.030 max.	0.50 ~1.50	Other alloying elements are added.			

Mechanical properties

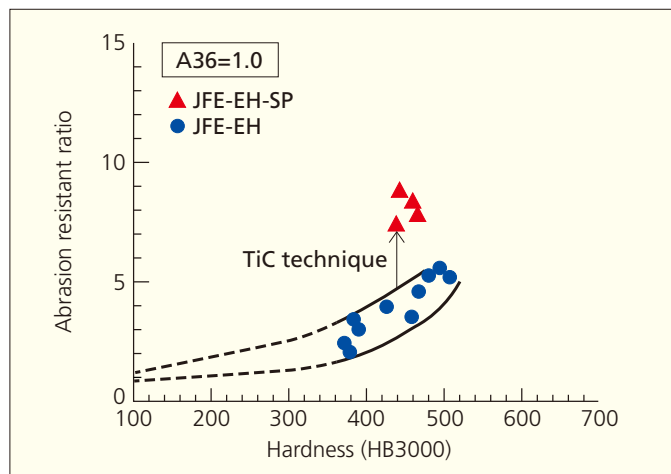
Grade	Hardness test*	
	Thickness mm	Brinell hardness (3000) Average of 5 values
JFE-EH-SP	5~65	401min.

* Test for plate surface.

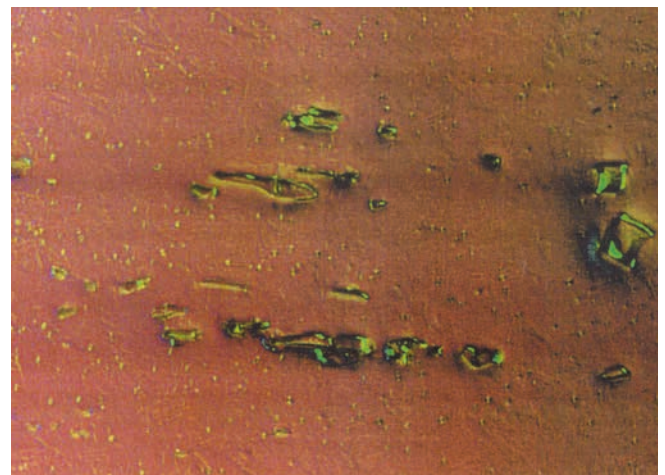
Appearance, shape, dimensions, mass and their tolerances comply with JIS G 3193.

Super Abrasion-Resistance

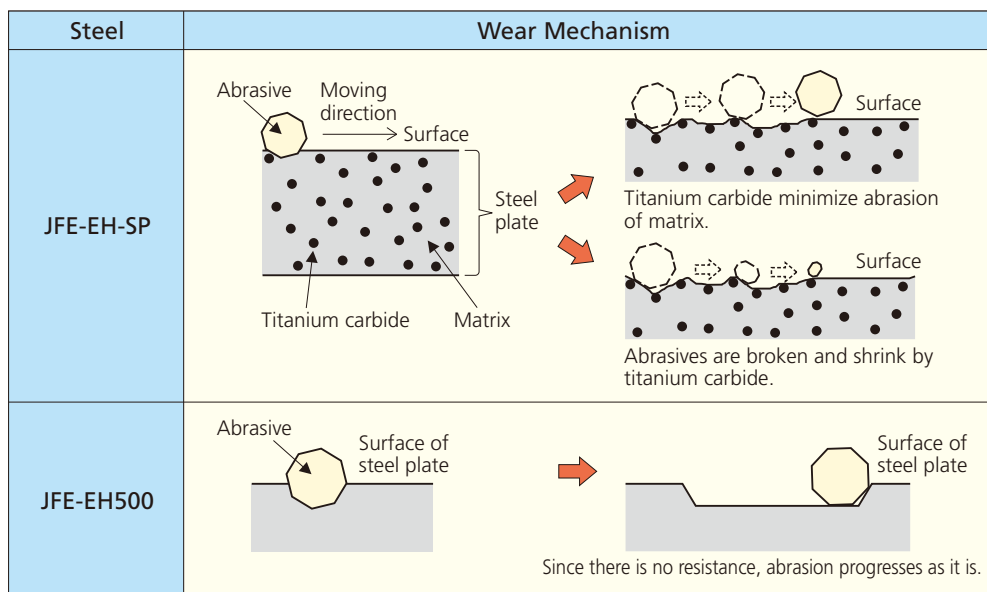
JFE-EH-SP vs Conventional material



Relationship between hardness and abrasion resistance (Abrasives : flatterly sand)



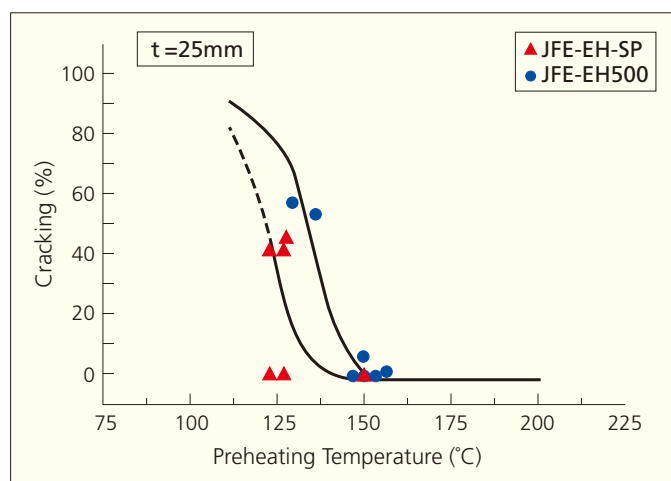
Green particles : Titanium carbide



Weldability

JFE is always developing and improving the abrasion-resistant steel plates in consideration of weldability.

JFE-EH-SP shows almost same weldability as that of conventional JFE-EH500 while abrasion-resistance of EH-SP is superior.



y-groove weld cracking test

Applications

JFE-EH-SP has been used at various mining plants and power plants instead of conventional abrasion resistance steel.

Applications

APPLICATION	ABRASIVE	CONVENTIONAL
LOADER BUCKET SKID PLATES	GOLD	500 BHN STEEL
CHUTE LINERS	GRANITE	500 BHN STEEL
LOADER BUCKET HEEL PLATES	CONCRETE	500 BHN STEEL
TRUCK BODY LINER PLATES	COPPER	500 BHN STEEL
CRUSHER DISCHARGE HOPPER	COPPER	500 BHN STEEL
CRUSHER FEEDER	COPPER	500 BHN STEEL
CRUSHER CHUTE	COPPER	500 BHN STEEL
TRUCK BODY LINER PLATE	GOLD	400 BHN STEEL
DRAGLINE BUCKET SHROUDS	ROCK	400 BHN STEEL
CRUSHER PARTS	COPPER	500 BHN STEEL
TRUCK LINER PLATES	COPPER	500 BHN STEEL
COAL CHUTE	COAL	500 BHN STEEL
VIBRATORY FEEDER	GOLD	500 BHN STEEL
CRUSHER PARTS	GOLD	500 BHN STEEL
CHUTE	ROCK	450 BHN STEEL

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