Rhinoite®
Titanium Carbide Hard facing Weld Overlay

The Rhinoite® process is an innovative, patented hard facing process that utilizes state of the art equipment — producing extraordinary results.

What is Rhinoite®?

Rhinoite is a specialty formulated and patented hard facing overlay that is applied to a variety of base metals using an automatic GMAW process. The weld overlay is embedded with hard particles of carbide that can be diamond ground to a desired dimension or left in as-welded condition depending on the application.

Who are the customers?

Chemical plants, refineries, power plants, mining operations……any industrial operation.

Where is Rhinoite® used?

Any piping system or mechanical handling equipment where wear is a problem.

What applications can use Rhinoite®?

Application opportunities are limitless as this time. The process can be adapted to all service environments in every wear application: erosion, corrosion, adhesion, and high-temperature applications. Rhinoite® can be applied to various valve components as well as inside of pipe fittings (elbows, t-sections, etc.) of multiple base materials: carbon steel, stainless steel, duplex steel, and Inconel.

For more information, contact sales@valv.com

What are the benefits?

- Minimizes loss of production time by wearing five to seven times longer in service operations than bare metal
- Reduces the number of shutdown times to years rather than months
- Eliminates equipment rentals, insulation replacement, and inspection frequency
- Reduces required man-hours for overall maintenance of units
- Improved safety by reducing the risk of equipment failure

Rhinoite® Hardfacing - Report of Hardness Profile Knoop 0.5 Kg Load Test Results

#	Distance from surface (in)	Reading HK 0.5	#	Distance from surface (in)	Reading HK 0.5	#	Distance from surface	Reading HK 0.5
1	0.005	505	28	0.140	665	55	0.275	593
2	0.010	519	29	0.145	577	56	0.280	557
3	0.015	501	30	0.150	580	57	0.285	1370
4	0.020	509	31	0.155	583	58	0.290	1100
5	0.025	529	32	0.160	650	59	0.295	599
6	0.030	521	33	0.165	580	60	0.300	551
7	0.035	551	34	0.170	672	61	0.305	506
8	0.040	511	35	0.175	672	62	0.310	1440
9	0.045	532	36	0.180	609	63	0.315	932
10	0.050	521	37	0.185	657	64	0.320	710
11	0.055	532	38	0.190	599	65	0.325	213
12	0.060	524	39	0.195	605	66	0.330	218
13	0.065	524	40	0.200	580	67	0.335	230
14	0.070	543	41	0.205	548	68	0.340	216
15	0.075	565	42	0.210	548	69	0.345	219
16	0.080	609	43	0.215	551	70	0.350	187
17	0.085	571	44	0.220	590	71	0.355	213
18	0.090	639	45	0.225	577	72	0.360	225
19	0.095	535	46	0.230	788	73	0.365	181
20	0.100	1030	47	0.235	490	74	0.370	176
21	0.105	646	48	0.240	633	75	0.375	216
22	0.110	516	49	0.245	543	76	0.380	172
23	0.115	466	50	0.250	1610	77	0.385	170
24	0.120	484	51	0.255	1160	78	0.390	217
25	0.125	680	52	0.260	1210	79	0.395	204
26	0.130	646	53	0.265	1280	80	0.400	179
27	0.135	664	54	0.270	1300			

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