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Anti-Fingerprint Coating

Mirror Metals is proud to offer Non Stain Processing (N.S.P.) anti-fingerprint coating on vibration, hairline, bead blast, and various embossed finishes. Anti-fingerprint coating is transparent and provides lasting protection for stainless steel. This excellent coating protects Stainless Steel from water, oil, dust, and fingerprints, and makes the stainless steel easy to clean.

AFP (Anti Finger Print) has become one of our most inquired and demanded coatings on various Stainless Steel finishes because it enhances the surface hardness.

Anti-Fingerprint Nano Surface Coating (AFP) Properties and Benefits:

This technique was originally utilized in the aeronautics industry. Through the manufacturing treatment, the Nano compound becomes attached to the metallic surface, resulting in the forming of a thin but durable protective coating. This coating creates a barrier to prevent the intrusion of oxygen and moisture enhancing the materials anti-corrosion and anti-fingerprint abilities. With the application of Nano anti-fingerprint coating (AFP), the surface hardness of stainless steel is increased.

- 1.) **Ease of maintenance:** Solves the problems of fingerprints on Stainless Steel; ease of maintenance can be accomplished with use of a clean cotton towel or cloth, and light detergent, such as Windex.
- 2.) **Increase surface hardness:** Regular Stainless steel is rated 2-H to 3-H pencil hardness test. After the AFP treatment, the surface hardness is tripled to reach at least 6 H hardness, which decreases the chances of receiving surface scratches.
- 3.) **Anti-corrosion rating:** Tested and proven by SGS (Salt Spray Test), up to 500 hours.
- 4.) **Anti-Chemical substances:** There has been a noticeable improvement on decreasing the risk of corrosive chemical substances damaging the stainless steel.
- 5.) **Laser and high temperature cutting :** Regular transparent coating on stainless steel cannot resist laser cutting and often times leaves obvious burn marks on the surface; however, after the application of Nano AFP treatment, laser burn marks are reduced.
- 6.) **Adhesion Test:** passed 100% Cross-Cut Test after AFP treatment. The material can be bent or folded, and still retains the same physical properties of regular Stainless Steel.
- 7.) **AFP coating is in micro units.** Normal application is usually between .0002 and .0003 inches.

N.S.P. (Non Stain Processing)

Adhesiveness



Passed 100%

Resistant to Solvents



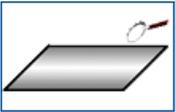
Passed 100%

Bending Ability

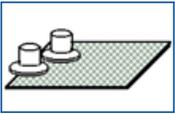


Passed 100%

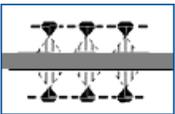
Step by Step Process:



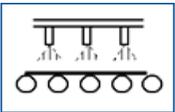
Dimensions ,surface, and flatness check



Remove grease / and 1st rinse



2nd rinse and dry



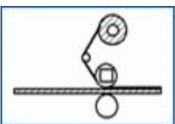
N.S.P processing



Drying



Inspect Surface , Formability , Anti-solvent property check



PVC Coating and packaging

Test Report

Test Method	Result	
Pencil Gouge/Scratch Hardness	ASTM D3363-00/JIS 5600	8H
Salt Spray Test	ASTM B117-09/JIS Z2317	Up to 500hrs
RoHS	IEC62321: 2008	PASS
Bending 180°	JIS K 6744/ ASTM D4145	PASS
Impact	ASTM D4145	PASS
Adhesion	JIS K 5400/ ASTM D3359	PASS

Points to consider:

Avoid the use of metal brushes; they will damage the stainless steel surface.

Avoid the use of chemicals like hydrochloric acid/ sulfuric acid/ nitric acid/ sodium hydroxide.

NSP Anti-Fingerprint is suitable for any indoor application. Not suitable for outdoor applications with direct exposure to solar UV radiation.

Avoid using NSP on Stainless Steel thickness exceeding 14 Gauge. 2.0 MM thickness if bending is required. There could be a coating break down on the radius.

