Peentex - Architectural Finishing

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COMPANY PROFILE

Curtiss-Wright Surface Technologies (CWST) offers a single source solution and point of contact for all your surface treatments. We can reduce your turnaround times and costs through our network of over 75 worldwide facilities.

Our proven surface treatments meet industry demands for lighter materials, improved performance and life extension in key markets such as Aerospace, Automotive, Energy and Medical. We can prevent premature failures due to fatigue, corrosion, wear, galling and fretting.

Surface Technologies is a Division of Curtiss-Wright (NYSE:CW) a global innovative company that delivers highly engineered, critical function products and services to the commercial, industrial, defense and energy markets. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing reliable solutions through trusted customer relationships.

Peentex is a decorative textured finish applied by controlled shot peening which enhances surfaces in architectural applications both aesthetically and practically.

Why choose Peentex finishes?

For over 60 years, the Peentex technique has produced creative and individual finishes for the construction and architectural design industry.

Peentex offers a range of benefits in addition to texture and beauty and can be used to enhance metal, glass, wood and acrylic sheeting.

Controlled shot peening has long been associated with engineered surface finishing of metals including steels, stainless steels, aluminium, titanium and copper alloys. It forms an essential part of the manufacturing process used within the engineering industry to improve wear and corrosion resistance and prevent premature fatigue failures.

The benefits

The Peentex process when used on metal, substantially improves wear and scratch resistance, ease of cleaning and also provides some resistance to written graffiti and stickers.

This makes Peentex an ideal application for 'high traffic' and aggressive environments.

The surface produced provides a finish which diffuses direct light and glare thus disguising fingerprints and mild blemishes. The finish is also non-directional so ideally suited for jointed and welded frames and structures. Applying Peentex directly to welded joints disguises the unsightly weld bead giving a more uniform appearance.

The peening action is a dimpling process and not a cutting or abrasive (blasting) process, which results in the hardening or compression of the metal surface. The harder surface will prolong life and reduce corrosion giving the metal a higher degree of wear and damage tolerance. This aspect is particularly useful when Peentex is applied to internal and external cladding where durability is a key requirement.

We are able to accurately control and repeat the peening technique to produce a range of different textures creating highly decorative designs and finishes. One excellent example of our work is the Dublin Spire, erected in December 2003 (see photograph in first column) where the ground level section was peened to create a mirrored pattern with stunning reflective qualities. The remainder of the structure was uniformly peened to improve its resistance to environmental conditions.

Peentex finishes are achieved by a combination of controlled shot peening and glass bead peening.

A range of media including steel, chrome steel, ceramic and glass can be used to produce the desired finish. The degree and consistency of texture depends on the base material and condition, size of media, media material and the energy that the media possesses at the point of impact with the substrate.

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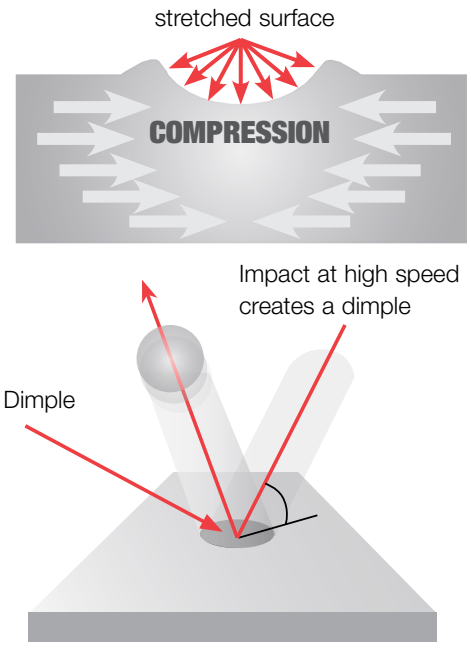
The process

Controlled shot peening is a cold working process where media called shot is propelled according to a pre-defined specification onto the surface of a component. This action creates an indentation causing the material to stretch or yield. However, the substrate in turn tries to retain its shape. This reaction produces a beneficial residual compressive stress which is proven to prevent fatigue and cracking and prolong the life of components.

In order to achieve consistency across the work piece, stringent process and quality control procedures are used to achieve the same results time after time. It is this process quality control that results in a uniform and repeatable Peentex finish.



APPLICATIONS

- Street furniture
- Internal & external fittings
- Hand rails
- Countertops, reception desks, etc.
- Internal and external cladding
- Curtain wall
- Metal and glass decoration
- Sculptures and monuments
- Signage and nameplates
- Welded bridges and structures
- General construction

KEY BENEFITS

- Harder surface finish on metals
- Improves wear/damage resistance
- Improves scratch prevention
- Makes surfaces easier to clean
- Resistance to written graffiti and stickers
- Disguises fingerprints and mild blemishes
- Non directional finish
- Prolongs life
- Resists corrosion
- Ideal for high traffic areas
- Protects against aggressive environments
- Creates highly decorative mirror designs and finishes

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