



# STEEL SURFACE PREPARATION

The life & performance of any paint system depends directly upon surface preparation. About 60% of all coating failures are due to improper surface treatment. Therefore, it is of vital importance to fully comprehend this aspect of painting.

## Method For Steel Surface Preparation:

1. **Degreasing:** to remove oil, grease & other contaminations apply solvent/degreaser to wash the surface, followed by wiping dry with clean cloth.
2. **Scraping & Wire brushing:** loose rust, mill scale & old paint can be removed by hand or power tools such as power wire brush & grinders are more effective than hand tools.
3. **Sanding:** is alternative method for scraping & wire brushing & is used where the area for treatment is small. Both manual & mechanical (sanders) can be used.
4. **Water blasting:** a high speed water jet can also be used for removing rust, loose paint, chemical contaminates, grease etc. High pressure water blasting can also be carried out by using hot water & / or special cleaning agents.
5. **Pickling:** rust & mill scale can be removed by acid & / or chemical pickling. Recommended for in – shop treatment, not advisable for on – site work.
6. **Sand Blasting:** It is the most effective method of cleaning steel. It is recommended for removal of mill scale, heavy rust, rust – scale & previous coating from extensive prior to sand blasting it is essential to first degrease the steel.

Generally four grades can be achieved by abrasive blasting to the Swedish standard or British Standard, that is, as below:

- |                                  |  |
|----------------------------------|--|
| a. Light blast cleaning          | GR SA – 1                                  |
| b. Through blast cleaning        | GR SA-2 / BS 4232 3 <sup>rd</sup> quality  |
| c. Very thorough blast cleaning  | GR SA-2.5 BS 4232 2 <sup>nd</sup> quality  |
| d. Blast cleaning to white metal | GR SA-3 / BS 4232 1 <sup>ST</sup> quality. |

7. **Others:** Paint Stripper (paint remover); Flame cleaning (burning off mill scale, rust, old paint etc); Alkaline cleaning etc.

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|--------------------|--------------|
| 1.Swedish Standard | : SIS 055900 |
| 2.British Standard | : 4232       |

## Method For Non – Ferrous Metal Surface Preparation:

Below are mentioned surface treatments for various surfaces – types.

1. Galvanised Iron: use degreasing method (as described under steel section)
2. Copper, Brass & Aluminium: use degreasing method; for larger areas use mechanical equipment.

## Method For Masonry Surface Preparation:

All new masonry, plaster & concrete surfaces should be allowed to cure for at least 30 days prior to any coating. Insure surface is dry & free from dust, loose particles, dirt oil, grease etc. this can be achieved by scrapping, sanding, wire brushing, detergent cleaning etc. efflorescence caused by salt must be brushed off till it is removed. Cracks must be repaired by crack fillers on exterior surfaces & stucco in interior situations.

Previously painted surfaces in good condition should be lightly sanded to promote adhesion prior to applying paint. Deteriorated coating should be scrapped off carefully.

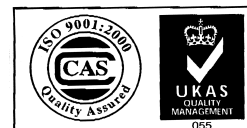
## Method For Wood Surface Preparation:

All new wooden surfaces like softwoods, hardwoods, plywood, chipboards etc. should be dry, clean & free from foreign particles. Smooth down with glass paper & apply a suitable knotting / preservative. This should be followed by primer to protect against moisture.

On previously painted surfaces apply paint removers, this should be followed by method described above.

*The above information is given to the best of our knowledge based on laboratory test and practical experience. However, as the paint is often used under condition beyond our control, we cannot guarantee anything but the quality of the paint itself. We reserve the right to change the given data without prior notice.*

FACTORY	:	P.O. BOX NO: 23085, SAJJAH INDUSTRIAL AREA, SHARJAH, U.A.E TEL : 06 – 5311777, FAX 06 - 5311330:
SHOWROOM	:	P.O. BOX NO: 23085, INDUSTRIAL AREA, SHARJAH, U.A.E TEL : 06 – 5328533, FAX 06 - 5328610
Website	:	<a href="http://www.maspaints.com/">http://www.maspaints.com/</a> Email : masuae@emirates.net.ae



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