

### METALSHIELD HARD – MSH LINE

- DESCRIPTION** : It is a polyurethane resin based, one-component primer and topcoat containing anti-corrosive pigments. It creates a strong and anti-rusting layer. Because of its cross linking effect, it produces very strong coatings. It has a very high physical and chemical resistance. As a result of the vacuumed micro-ceramic spheres that are used as a heat shield by NASA, it creates a high heat insulation as well as corrosion resistance. It is a class A flame-retardant product.
- AREAS OF USE** : It is used in industrial zones, ports, facilities, steel surfaces, concrete surfaces, bridges, car chassis, tanks, metal surfaces requiring heat insulation, under and above water surfaces, metal and concrete surfaces subject to chemicals such as acids or alkali, as well as drinking water tanks.
- COLORS** : Gray
- APPEARANCE** : Matt
- DENSITY** : 1,2-1,3 kg/lit (Changes according to color )
- SOLIDS** : %:58-64 (Changes according to color) (ASTM D 2697-03)
- V.O.C.** : 416 g/L (ASTM D 3960-05)
- PACKAGE** : 15 Kg
- AREAS OF USE** : It is used on steel surfaces, highly corrosive environments as a topcoat paint. It makes a strong cover and highly resistance to weather conditions.
- STORAGE** : Flammable liquid regulations should be followed. The product should be stored in a cool, dry and efficiently ventilated area. No smoking in storage area. Keep out of reach of children If a leakage is detected, then it should be cleaned with a proper absorbent (such as soil).
- STORAGE LIFE** : If kept in its original package and in a room temperature of 4-50°C, storage life starting from its production date is 1 year.
- PREPARING THE PAINT** : **Mix well before use.** Open packages should not be used and the supplier should be contacted. If applied with airless gun, it should be thinned down 20-30% by volume; with conventional gun 30%, and with brush 5-10%. If conventional guns are used, the nozzle diameter should be 3mm.

**PREPARING THE SURFACE:** The surface should be dry and cleaned from dirt and grease with a proper cleanser. In order to clean the surface from dirt, dust and mud, use fresh water with high pressure. Proposed abrasive rasp degree is generally Sa<sup>1/2</sup>. If the conditions in the location would not allow you to work with this degree, you may carry out the cleaning on St2 degree as well. (ISO 8501-1:1998 )

**APPLICATION TEMPERATURE:** For avoiding the humidity to condense on the surface, surface temperature should be at least 3°C more than dew point temperature. The temperature should be over 10°C during application.

**APPLICATION METHOD :** with airless, air gun, brush or roll.  
 Suggested nozzle diameter is 0,17 – 0,21 inch and suggested pressure is 150bar / 2175 psi  
 If conventional guns are used, the nozzle diameter should be 3mm.

**APPLICATION :** After mixing properly, the paint should be thinned down to be applied with solvent. In order to ensure homogeneity, the thinned down product should be regularly mixed. More attention should be given when painting welding joints, ends, sharp spots, corners, screwed and clinched parts. The thickness should be measured without damaging the film during application, by using a proper dry film measuring device. 70 micron wet film thickness is approximately equivalent to 40 micron dry film thickness. Minor application mistakes should be redone with a brush and major mistakes with a spray. Suggested thickness for dry film application is between 40 to 80 microns. 30-60 minutes break in 20°C is necessary between two coat applications. Waiting period between coats may vary according to environmental conditions.

**DRYING TIME :** Considering 20° C and 65% of relative humidity rate:

Non- dust holding Drying	Dry to Handle	Assembly Drying	Mechanical Drying
Approximately 15-20 minutes	Approximately 45 minutes	Approximately 6-8 hours	Approximately 3 days
If oven-dried 30 minutes in 80°C would suffice.			

**PAINTED AREA :** It covers 11 m<sup>2</sup>/lt area with 40 micron dry film thickness.

**SAFETY WARNINGS :** Keep out of reach of children. Store in a cool place, best between 10 - 25 °C. Upon contact with eyes, wash with water and consult a doctor. If swallowed, immediately consult a doctor.