TECHNICAL DATA SHEET

SEAMASTER 6003/6006 HEAT RESISTANT ALUMINIUM PAINT 200°C/600°C

6003 Heat Resistant Aluminium Paint 200˚C

Description	It is a high quality aluminium paint specially formulated to withstand heat up to 200˚C
Recommended Use	It is suitable for painting furnaces, engine part, industrial appliances etc
Colour	Metallic aluminium
S.G	0.95 ± 0.10
Drying time	Surface Dry 5 mins Tack Free 10 mins Hard Dry 1.5 hrs
Reducer Use	Xylene / Thinner
Area coverage rate	16 m² ~ 20 m² / litre (depending on working condition)

6006 Heat Resistant Aluminium Paint 600˚C

Description	It is superior quality paint, it can withstand temperature up to 600°C. It is formulated by using silicone based resin.
Recommended Use	It is suitable for steel surfaces where high heat resistant is required.
Colour	Aluminium (other colour also possible depending on quantity)
S.G	0.95 ± 0.10
Drying Time	Surface Dry 10 mins Tack Free 20 mins Hard Dry 3 hrs
Reducer Use	Xylene / Thinner
Area Coverage Rate	16m² / litre (approximately)

Heat Resistance of Coating on Steel

It is one of the principal laws in physical chemistry that increases of 10°C will double the speed of reaction. They govern the reaction of hot steel in the atmosphere. Oxygen begins to react with iron about 200°C with a coloration of the surface. These colours are nothing but very thin of l ayers of iron oxides.

At 450°C the formation oxide layers will be so marked that a scale of about 1mm/year is formed. At 650°C the development of the scale is more that 10mm /year. These scale formations will the reason why hot parts of steel structures must be protected against the oxidation process.

For the protection of steel we need coatings which have to resist heat degradation i.e. they must be stable against the higher temperatures for a long time, even years and they must be dense and prevent the permeation of oxygen. There is a distinction in the terminology. Below 200°C, we speak of thermal resistance', over 200°C of 'heat resistance'.

In general, we can say that 200°C is the upper limit for all organic coatings. Above this temperature we must use inorganic modified or even pure inorganic binders to formulate these paints.

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Temperature up to 150˚C	Most materials that can still be protected by pure organic based coatings fall into this range. The two pack epoxies or PUR coatings are suitable with one restriction. White or pastel shades are only stable up to 120°C above temperature they will yellow. The one component binders like alkyds should not be used above 80°C.
Temperature at 200°C	In this range, aluminium paint based on cyclised rubber is formulated specially for this application i.e. 6003.
Temperature between 300°C to 600°C	This is the range of the organic silicones the combination of organic groups with the inorganic silicones. They are the methyl or phenyl silicones which are air drying. To this group belongs also the acrylated silicone. All of these will be degraded down to the silicone dioxide matrix which binds the heat resistant pigments together. They form sintered compound which show excellent weatherability.

Product Liability

The Seller warrants the product to be free from manufacturing defects in material and workmanship. The Seller's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited at the Seller's option, to either replacement of products not conforming to this warranty or credit to the Buyer's account in the invoiced amount of the non-conforming products.

The Seller makes no other warranties concerning this product. No other warranties, either express or implied, or satisfactory, and as warranties or merchantability or fitness for a particular purpose, shall apply. In no event shall the Seller be liable for consequential or incidental damages. Any recommendations or suggestion relating to the use of the products made by the Seller, whether in its technical limitation, or in response to specific inquiry, or otherwise, is based on data believed to be reliable, however, the products and information are intended for Buyers having requisite skill and know-how in the industry, and therefore it is for the Buyer to satisfy itself of the suitability of the products for its own particular use, and it shall be deemed that the Buyer has done so, at its sole discretion and risk. Variation in environment changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

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