

Yakthn® HeatSeal 300

Product description

A single pack waterborne pure silicon high temperature resistance thermal seal coating by using special modified silicon polymer, recommend using for temperature of substrate over 150°C, which can apply on steel substruction directly and offer good thermal seal performance. It has excellent high temperature tolerance: the highest temperature could be 300°C.

Principal characteristics

- Water borne coating
- High volume solid
- Limited VOCs content
- Excellent heat resistance
- Outstanding thermal seal performance
- High coating layer building
- Can be applied on heat surface directly, Temp. < 150°C
- Enabling to use airless spray
- Good compatibility with anti-corrosive primer

Intended Uses

- Protective: use for exterior of pipes, containers and storage tanks for conveying and storing hot materials. While for interior of above, the coating is not suitable.
- Marine: use for exterior of pipes, containers and storage tanks for conveying and storing hot materials.

Product Data

Colour	White, grey
Gloss (GU 60 °)	Semi-gloss
Volume Solids	73±2 %
Typical Thickness	1000 um
Theoretical Coverage	0.66 m ² /L by 1000 um
Flash Point	/
Mass density	0.74 Kg/l
VOC- China	55 g/l
Mix Ratio	Single
Heat Resistance	Dry, atmospheric 300°C (Continuous)
Thermal conductivity	0.06w/m*k (Thermal probe method)
Method of Application	Airless spray, scrape
Pack Size	19L coating in 20L drum
Shelf life	12 months (Store in cool and dry room above 10°C)

The provided data is typical for factory produced products, subject to slight variation depending on colour.

When applicable, products primarily meant for use as primers may have slight colour variations from batch to batch. Such products and epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering. Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint.

Surface Preparation

Substrate	Minimum	Recommended
Carbon steel	Sa 2 (ISO 8501-1)	Sa 2½ or St 3(ISO 8501-1)
Non-metal substrates	The surface shall be hand or machine abraded with non-metallic abrasives or bonded fiber machine or hand abrasive pads to impart a scratch pattern to the surface.	Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Coated surfaces	Clean, dry and undamaged compatible coating	P Sa 2½ (ISO 8501-2)

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance is achieved with recommended surface preparation.

Application

- Mix Ratio: /
- Thinner: water < 5%
- Airless Spray: Pump ratio: ≥33:1, Nozzle tip: 0.017-0.027-inch, Nozzle pressure: ≥3000Psi
To apply with single coat with thickness of 1000µm DFT, recoating after surface dry of existing layer until DFT is reach specification.
Limited thickness of single coat is 2mm if applied by scrape and recoating after surface dry of existing layer.
- Drying time at 1000 um

Temperature	Touch Drying	Hard Drying	Dry to over coat Min.	Dry to over coat Max.
30°C	3 h	16 h	1 day	Unlimited
20°C	4 h	24 h	2 days	Unlimited
10°C	6 h	36 h	3 days	Unlimited

- The coating is pure silicone coating, and the initial crosslinking temperature of the paint film should be above 150°C (200°C is preferred) for chemical curing to reach the design performance of paint film. For below 150°C, specify with Coatime® HeatSeal 5150 for best thermal seal performance.
- Induction time: N/A, use power tools for stirring to be even before application, while to note that excessive agitation may negatively affect product performance.
- Pot life: N/A, but please use up once open normally

System Compatibility

- Previous coat: Anti-corrosive primer
- Subsequent coat: Acrylic, polyurethane coating

Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Yakthn representative for approval before commencing the work.

Disclaimer

The information provided in this manual is not exhaustive and is based solely on the knowledge we have gained in our laboratories and practice. Anyone who, for any purpose, uses any product other than those specifically recommended in this Manual without first confirming it in writing to us, at their own risk, the suitability of the product for its intended purpose. While all suggestions or statements made about the product (whether provided in this specification or otherwise) are correct in our best knowledge, we have no control over the quality or condition of the substrate or the factors that affect the use and application of the product. Therefore, unless we specifically agree in writing to this practice, we are not responsible for any product performance issues arising or for any loss or damage caused using the product (to the maximum extent permitted by law). We hereby undertake no warranty, express or implied, by legal operation or other means, including, but not limited to, implied marketable security or security of applicability for a particular purpose. All products supplied and technical guidance provided are governed by our standard terms and conditions of sale. You should obtain a copy of this document upon request and read it carefully. The information contained in this product specification will be modified at any time in accordance with experience and our policies, and we reserve no further notice to modify the instructions book right. It is the customer's responsibility to check with your local representative that the latest version of the product description is in your possession before using the product. This product specification is available at www.Yakthn.com. If the online version does not match this one, please take the online version.
