

GUIDANCE FOR USE

Keelblack is applied very differently from conventional bituminous paints or 2 pack epoxies. New users including Yards should call Keelblack for guidance.

1. INTRODUCTION. The following is a suggested guide for use for the application of standard **Keelblack** by paint pad, roller or brush.

NB Local conditions may require changes to the described application. Other methods may be trialled at the user's discretion. Keelblack welcomes feedback by email or telephone.

Standard **Keelblack** is not suitable for spray application. **Keelblack 250** has been developed for spraying. Contact **Keelblack** for advice.

2. REQUIRED EQUIPMENT. Paint pads are recommended. 4" or 9" rollers (micro-fibre) are more suitable for pitted surfaces and may be used on short and long handles with roller trays and clingfilm (for overnight storage). Do not use natural or cotton fleece or small cell (white) gloss rollers. Tightly bristled paint brushes tend to clog and spread but success has been had with wall-paper paste type brushes where the bristle clusters are plentiful and set apart. Our preference is for paint pads enabling rapid application and accurate cutting-in. White spirit is useful for cleaning clogged pads brushes or rollers.

3. PROCEDURE. KEELBLACK CAN BE APPLIED TO DAMP STEEL. IN NORMAL WEATHER CONDITIONS, THERE IS NO NEED TO DRY OR DEHUMIDIFY NOR HEAT THE HULL BEFORE APPLICATION. Keelblack is a water based emulsion, but very wet surfaces should be avoided.

If using outside, do not apply during periods of heavy rain. Ideally, all works should take place in an environment protected from rainfall and left covered until touch dry. **Keelblack** should only be applied in temperatures of 5°C and above. However in persistent cold weather conditions both steel and Keelblack may need gentle warming (see below). **Keelblack** can be warmed to around 40° to 50°C. This assists drying and curing. **The emulsion WILL SEPARATE if overheated or applied to frozen or very cold steel.**

Old steel surfaces should be pressure washed clean, all marine growth removed and freed of flaking material with a scraper. Heavy rust should be wire-brushed or ground back to bare steel. Care should be taken not to over polish the steel. Prime bare or rusty steel with **Fertan** in accordance with the manufacturer's instructions and allow the chemical reaction to work for 24 hours. After this period, the **Fertan** must be thoroughly washed off the treated surface before **Keelblack** is applied.

If there is evidence of **Microbial Corrosion** (a soft rust-like bloom or red/ orange "paste" around the waterline, easily rubbed off and leaving the water cloudy) this **MUST** be treated before reblacking.

Download Microbial Corrosion leaflet from www.keelblack.com or call for advice.

On painted surfaces previously treated with bituminous paint or 2-pack epoxy, ensure all flaking paint is removed where possible. It is advisable for any bitumen, and **ESSENTIAL for any epoxy coating**, that the surface is abraded with 400 grade paper to ensure the **Keelblack** can key. If the type of previous coating is unknown, a small inconspicuous test area should be tried leaving sufficient time to check that there is no adverse reaction. **Keelblack** can flow between old paint and the steel helping to re-bond previous coats of bitumen to the hull but **Keelblack** applied over flaking paintwork may detach with the old paint.

New steel **MUST** have any mill scale removed by shot/ bead blasting or vigorous wire brushing and ideally be treated with a good rust inhibiting system. Keelblack recommends **Fertan**. If mechanically wire brushing, take care not to over-polish the steel and reduce adhesion of the **Fertan** or **Keelblack**.

Keelblack is unlike solvent based blacking products. It is **VITAL** to apply several **VERY THIN COATS** (30 microns each) for which a paint pad is ideal. **Keelblack** covers approximately 11-12 square metres per litre (basis a single coat) although on well-prepared surfaces and on new steel the coverage rate may be greater. Three coats of **Keelblack** should be applied, allowing the first coat to touch dry before

subsequent coats. Provided it is applied THINLY, drying times are rapid and as a general rule subsequent coats can be recommenced at one end as soon as the coating has been completed at the other. Subsequent coats should achieve greater coverage and should NOT be abraded or flatted between applications. If time permits, leaving a few hours between coats will allow the **curing** process to commence earlier. We suggest that a sealed jam jar of product is reserved for touch-up.

Keelblack forms a hard skin permanently bonded to the steel. Should any damage to the treated surface expose bare steel, touch in if possible with **Fertan** and re-apply **Keelblack** with a paint pad or small brush. **Fertan** is ineffective when applied to any surface other than bare or rusty steel.

4. CURING. **Keelblack MUST be allowed to cure before steel hulls are relaunched.** In dry conditions with good airflow, **preferably allow at least 36 hours.** In cold, damp or humid conditions, allow **at least 48 hours.** A simple finger-nail test will indicate the hardness of the product. **Keelblack** will cease curing once immersed in water. Topsides remaining exposed to the air will continue to harden.

5. HEATING. Warming is unnecessary in normal weather but during exceptionally cold periods, **Keelblack** may be warmed to a **maximum of 40^o-50^oC.** Excessive heating risks breaking and destroying the emulsion.

6. DILUTION. **Do not dilute** with water or any thinners.

7. DURING USE. For short term storage, pads, brushes and rollers should ALWAYS be kept in product, in water or in white spirit or wrapped in cling film when not in use. For longer term storage, wash out with clean water and detergent.

8. AFTER USE AND CLEANING. Wet **Keelblack** can be easily removed with water. Dried or cured **Keelblack** may require use of white spirit. Splashes on fabric may leave a stain. Clogged pads, brushes or rollers may need softening in white spirit before cleaning with fresh white spirit and rinsing in a water and detergent solution.

9. STORAGE - PROTECT FROM FROST. All containers (including product reserved for touch-up) should be regularly agitated to avoid excessive settlement. Material in 200 litre drums should be rolled several times and 5 and 25 litre cans shaken before use. It is essential that the product is regularly agitated in storage to retard the natural tendency for emulsions to separate. Store above 5^o-10^oC; for small quantities, keep in a heated environment. The white band apparent in a keg that has not been recently agitated is latex which easily recombines.

10. HEALTH AND SAFETY ADVICE / SUMMARY. **Keelblack** is non-hazardous and non-toxic however contact with the skin should be minimised by the use of protective clothing and suitable gloves. Eyes should be protected from splashes. **For full information, reference should be made to the Safety Data Sheet at www.keelblack.com.**

11. ENVIRONMENT. **Keelblack** IS NON-HAZARDOUS, NON-TOXIC and CONTAINS NO SOLVENTS. It is **environmentally inert** when dry but in a liquid state it is harmful to aquatic life and should not be discharged into watercourses. Empty containers should be disposed of in accordance with local authority regulations. See **Environmental Statement** at www.keelblack.com.

12. ADDITIONAL INFORMATION. All products should be used in accordance with the manufacturer's instructions. No responsibility can be taken by the manufacturer where conditions of use are beyond our control. **Keelblack** products are sold subject to **Tuffblack Ltd** Standard Conditions of Sale, visible on the website or available on request.

Whilst any information and/or specification contained herein is to the best of our knowledge true and accurate, no warranty is given or implied in connection with any recommendations or suggestions made by us or our Representatives, Agents or Distributors as the conditions of use and any labour involved are beyond our control.

Keelblack technical data sheets are updated on a regular basis. Contact Keelblack for revisions.

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