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LIFE-CALK[®] TYPE H (HEAVY) TWO PART POLYSULFIDE RUBBER

BASIC USE

Especially formulated where a non-sagging, strong, flexible, weather resistant compound is required for sealing hulls, bedding hull fittings, and as a double planking adhesive.

DESCRIPTION

BoatLIFE Life-Calk[®], Type H is a heavy, non-sagging, two part synthetic rubber compound, which cures to a solid rubber after being mixed with the proper amount of accelerator. The compound is developed especially for seam and hull sealing of minesweepers, pleasure craft, and other boats where wide openings require a non-sagging sealing compound. The cured rubber has excellent weathering characteristics showing no apparent softening, cracking, peeling, chalking, or marked color change after prolonged weathering and aging. It has exceptional adhesive, elongation and compression properties and outstanding resistance to water, oil, gasoline, and fuels. These overall advantages have made this compound especially valuable in marine applications where adhesion, elongation, compression and resistance to many corrosive elements are essential.

SPECIFICATIONS

BoatLIFE Life-Calk[®], Type H meets or exceeds the requirements of Federal Specifications TT-S-0027, Type II, and Military Specifications C-18255E (Ships) & Amendment 1 dated 20 Dec., 1989, Type II. BoatLIFE LifeCalk[®] Type H does not contain Polychlorinated biphenyls (PCBs).

APPLICATION PROPERTIES (Typical)

| | |
|-----------------------------------|--------------------------|
| Base Compound Color | Black |
| Accelerator | Reddish Brown |
| Mixing Ratio | 30:1 by weight |
| Nonvolatile Content | 97% |
| Viscosity | |
| Brookfield Spindle #7 at 1 rpm | 69.5 |
| Consistency | Thick paste, non-sagging |
| Application Life at 75° F, 50% RH | 1/2 hour |
| Tack Free Time at 75° F, 50% RH | 1 hour |
| Cure Time at 75° F, 50% RH | |
| (To 26 Shore Hardness) | 72 hours |
| VOC – Part A | 3.67% |
| VOC – Part B | 0% |

PERFORMANCE PROPERTIES (Typical)

| | |
|---------------------------|-------|
| Color | Black |
| Specific Gravity | 1.69 |
| Hardness, Shore Durometer | 30 |
| Shrinkage | 1.8% |

**Life-Calk®, Type H POLYSULFIDE BASE CAULKING AND SEALANT
PERFORMANCE PROPERTIES CON'T.**

TENSILE ADHESION AND ULTIMATE ELONGATION

| | Tensile Adhesion (psi) | Ultimate Elongation | Type of Break |
|--|---|--------------------------------|--------------------------|
| DOUGLAS FIR | | | |
| Initial (Cured 96 hours @ 75° F) | 207 | 420 | Cohesive |
| After 7 days @ 158° F | 156 | 320 | Cohesive |
| After 4 days immersion in 10% salt water | 195 | 240 | Cohesive |
| TEAK | | | |
| Initial (Cured 96 hours @ 75° F) | 190 | 430 | Cohesive |
| After 7 days @ 158° F | 175 | 355 | Cohesive |
| After 4 days immersion in 10% salt water | 165 | 345 | Cohesive |
| Swell in 100% iso-octane (Medium No. 4 Fuel, Federal Test Method Std. 601, Method 6001) | 2.5% | | |
| Low Temperature Flexibility Temperature Range | - 40° F | | |
| Resistance to Salt Water | Excellent: no cracks, softening, peeling or chalking | | |
| Resistance to Hydrocarbons, Fuels and Oils | Excellent | | |
| Resistance to Weathering | Excellent | | |

NOTE: The above application and performance property values are typical for the material, but not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions and configurations.

Minimum seam requirements are 1/8" wide by 1/4" deep.

SURFACE PREPARATION

WOOD

The surface must be dry, clean, and free of all old caulking materials. Cut back weathered surfaces or rot by routing, sanding, or sawing to solid wood. Rotted wood maybe treated with "Git"-Rot®. When new wood is coated with preservatives such as Woodlife®, the surface must be thoroughly sanded before application. Life Calk Primer should be applied before applying sealant.

METAL

The surface must be dry, clean, and free of corrosion, mill scales, rust, oil, paint, and all old caulking material. Remove corrosion by sand-blasting, wire brushing, grinding, or chemical corrosion remover. Rusted surfaces may be treated with : "Git"-Rust®. When using chemical corrosion removers, thoroughly rinse away all traces of chemicals and thoroughly dry. Cleaning of corrosion-free metal may be accomplished with an oil-free solvent. When using an oil-free solvent (reclaimed solvents should not be used), a progressive cleaning procedure should be used. Wash a small area at a time, then dry with a clean cloth before the solvent evaporates to prevent contaminants on the surface. Always pour the solvent on the washing cloth to maintain a clean solvent supply.

Life-Calk® Type H POLYSULFIDE BASE CAULKING AND SEALANT
PERFORMANCE PROPERTIES CON'T.

SEAM FILLERS

Where necessary, seams should be packed with **BoatLIFE Bondbreaker**, standard caulking cotton, untreated jute, or some other compressible filler material. It is very important that seam fillers are not impregnated with oil or bituminous materials.

MIXING INSTRUCTIONS

NOTE: Do not mix accelerator with base compound until ready to use.

Thorough mixing of base compound and accelerator is necessary to obtain optimum physical properties in the cured compound. **BoatLIFE Life Calk® Type H** should be mixed as follows:

1. Remove the accelerator lid and with a clean wood tongue depressor, putty knife, or spatula, stir the contents slowly to a smooth creamy paste.
2. Open the base compound can and stir until material is smooth and homogeneous. It is good practice to cut the lip off the base compound container can so that a smooth walled container is obtained. You may invert the can and cut out the bottom to create a smooth walled container.
3. Add the accelerator to the base compound and thoroughly mix for 7 to 10 minutes. The mixing paddle and the sides and corners of the mixing container should be continually scraped to assure that no unmixed accelerator is covered or concealed after the mixing operation is completed. Mixing should be done slowly and carefully so as not to mix air into the material.

APPLICATION LIFE

Application life is the period of time that the mixed compound remains at a consistency suitable for application with a spatula or caulking gun. Application life is always based on standard conditions of 75° F and 50% relative humidity. For every 10° F rise in temperature, the application life is reduced by half and for every 10° F drop, it is doubled. High humidity at the time of mixing shortens the application life.

APPLICATION PROCEDURE

CAUTION: Do not apply **BoatLIFE Life-Calk® Type H** on wet or frosty surfaces or when the surface temperature exceeds 130° F.

Polyurethane paints are not compatible with polysulfide sealants.

1. Clean seams with **Life Calk Solvent and Cleaner**.
2. Apply the mixed compound by spatula or trowel. In order to avoid air bubbles, compound should be pressed into seam and seam should be filled completely.
3. Clean up area where material has been applied before the compound cures. Allow compound to cure at least 72 hours at standard conditions before sanding.

CURE TIME

Cure time, or the period of time required for the mixed compound to become firm and rubbery, is 72 hours at 75° F and 50% relative humidity. Variations in the rate of cure time may be due to temperature and humidity changes, since each 10° F increase in temperature above 75° F speeds the cure rate by 50% and each 10° F decrease in temperature slows the cure rate by 50%.

**Life-Calk®, Type H POLYSULFIDE BASE CAULKING AND SEALANT
PERFORMANCE PROPERTIES CON'T.**

CLEANING OF EQUIPMENT

Wash equipment and tools with **BoatLIFE Life-Calk Solvent and Cleaner®** or acetone immediately after use or before material cures. Remove cured material by scraping, wire brushing and/or soaking in commercially available stripping compounds. Remove compound from hands by scrubbing with soap and stiff bristled brush.

HEALTH PRECAUTIONS

BoatLIFE Life-Calk®, Type H is proven to be safe material when handled with reasonable care. The sealant accelerator contains a lead compound. Avoid repeated or prolonged contact with the skin, especially contact with open breaks in the skin and ingestion. Always wash hands before eating or smoking. If sealant accelerator contacts the skin, flush with soap and warm water. Obtain medical attention in cases of extreme exposure or ingestion.

QUANTITY ESTIMATION

| Lineal Feet per Cartridge | | WIDTH OF JOINT | | | | |
|---------------------------|------|----------------|----|----|----|-----|
| DEPTH OF JOINT | 1/4" | 60 | 29 | 18 | 15 | 10 |
| | 3/4" | 37 | 18 | 15 | 10 | 7 |
| | 1/2" | 29 | 15 | 10 | 7 | 5 |
| | 3/4" | 18 | 10 | 7 | 5 | 3.5 |
| | | | | | | |

▶ TESTING IS RECOMMENDED.

BoatLIFE Life-Calk®, Type H is also paintable and sandable after complete curing occurs. Since curing time varies with the environment test a small area of the caulking. If the paint does not dry in a reasonable amount of time, a latex primer can be used. Do a second test of a small area.

BoatLIFE Life Calk®, "Git"-Rot®, "Git"-Rust® BoatLIFE Life Calk Solvent & Cleaner® are registered trademarks of Life Industries Corporation.
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