

APPLICATION MANUAL AND RECOMMENDATIONS FOR THERMO-SORB HB

DOCUMENT No.: 070725-IFRM-TSS-A
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SECTION A. REVISION SUMMARY

Revision	Date	Amendments
A	07.07.2025	First revision
B	10.10.2025	Changes to application equipment and temperature

SECTION B. INTRODUCTION

Audience

We assume that applicators of CARBOLINE products understand the terminology associated with our products and the various pieces of spray equipment and application techniques.

The installation of the THERMO-SORB HB Intumescent Fire Resistive Materials shall be performed only by contractor personnel trained or qualified by CARBOLINE in the installation of the materials.

Locating Information

This guide incorporates a number of aids to help you locate information easily.

- Table of Contents
- Figure and Table Listings
- Page Headers and Footers
- Frequent Section, Subsection, and Topic Headings

Numbering System

To avoid a cumbersome numbering system, only chapters, sections, and subsections have a numerical designation. For example, "2.3.1" represents Chapter 2, Section 3, Subsection 1.

Illustrations and drawings generally appear at the end of this document.

Breakdown of Information

Frequent section and subject headings highlight other significant information within a chapter. Heading type style and indentations indicate the level of importance for the topics.

Related Publications and Documents

This document occasionally refers to other Guides, data sheets, or specifications that may be helpful. Copies are available from CARBOLINE. Related information can be accessed at www.Carboline.com.

Other documents that may be helpful, include:

- OSHA - Occupational Safety and Health Administration Safety Rules
- National Spray Equipment Manufacturer's Association Precautions for Spraying
- Power tools, hand tools or other mechanical equipment operating procedures.

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SECTION C. SAFETY PRECAUTIONS

THERMO-SORB HB materials weigh approximately 11 – 12 pounds per gallon. Caution should be taken when lifting and moving the material to prevent injury.

Observe the National Spray Equipment Manufacturers Association precautions for spraying.

DO NOT point spray gun at any part of the human body.

Notes on Installation

Basis for Installation Procedures in This Guide

The installation steps and procedures in this guide were prepared with the best available data. All of the steps and procedures presented in this guide are based upon tests. As additional test and installation data becomes available, including revised installation procedures, CARBOLINE may update and modify this guide.

Note: This is a general Application Manual and cannot cover all possible situations which may arise in the field. For technical assistance, contact CARBOLINE's Fireproofing Technical Service Group at: 1-800-848-4645.

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SECTION 1: GENERAL CONDITIONS

1.1 SCOPE

This Application Manual describes the requirements for the application of the THERMO-SORB HB Intumescent Fire Resistive Materials to interior and exterior steel surfaces for the commercial and light industrial market, based on the cellulosic requirements of ASTM E 119, UL 263 and/or CAN/ULC-S101. For the application to any other substrates, markets or specifications, contact CARBOLINE Technical Service or your local CARBOLINE Sales Representative.

1.2 QUALITY CONTROL MANUAL

1.2.1 QUALIFICATIONS OF APPLICATORS/RESPONSIBILITIES OF PERSONNEL

The application shall be performed by a Qualified Applicator having CARBOLINE training with proper equipment and experience.

1.2.2 REQUIREMENTS

In order to qualify, an Applicator shall:

1. Undergo specific training by CARBOLINE
2. Be experienced in the application of thin film Intumescent coatings.
3. Have the necessary approved spray application equipment and recommended quality control instrumentation.
4. Have in place an acceptable QA/QC system and be prepared to permit CARBOLINE audits.
5. Understand and recognize their statutory obligations with regard to health and Safety.

1.3 SAFETY PRECAUTIONS

The Applicator shall follow standard industrial hygiene practices for the handling of chemical coatings and shall conform to applicable codes of practice, regulations, and Owner Safety rules in all respects. Reference THERMO-SORB HB SDS for additional information and instruction.

Where power tools hand tools, spray equipment or other mechanical equipment are being used, the proper operating procedures for each tool or piece of equipment, as well as eye, hearing and respiratory protection should be followed. Equipment used to apply THERMO-SORB HB is under high pressure. Any injury caused by high pressure liquids can be serious and immediate medical attention should be sought.

1.4 DELIVERY

Material shall be delivered to the site in original, unopened containers, bearing clearly visible product names, batch number, name of manufacturer, expiration date, certification mark, and storage instructions.

1.5 STORAGE

Material not in immediate use shall be stored off the ground in a covered area assigned for that purpose. The materials in storage shall be protected from temperatures above 100°F (38°C) and below 32°F (0°C).

Prior to use with airless spray equipment, THERMO-SORB HB shall be pre-heated to a minimum of 70°F (21°C) and a maximum of 100°F (38°C).

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1.6 PROTECTION OF ADJACENT SURFACES

The applicator shall mask off all adjacent areas and equipment from material overspray during the application. Overspray shall be removed promptly before material has cured. When applying these coating in windy conditions, additional precautions to control overspray should be undertaken.

SECTION 2: MATERIALS

The THERMO-SORB HB Intumescent Fire Resistive Materials systems consist of:

2.1 PRIMERS

All primer systems must be accepted by CARBOLINE prior to use under THERMO-SORB HB. The acceptable primer system shall be applied to properly prepared surfaces in accordance with the manufacturer's and project specifications.

The general requirement for steel preparation before the application of an approved primer should meet SSPC-SP2 or SP3. Contact Carboline Technical Service for surface preparation recommendations and specific primer requirements.

Existing coatings must attain a minimum 3A rating in accordance with ASTM D3359 Method A, X cut adhesion test. If acceptable, clean and lightly abrade in accordance with SSPC-SP2 or SP3 to roughen and de-gloss the surface. If not acceptable, the coating must be removed and areas re-primed with a compatible primer. Contact Carboline Technical Service for a list of approved tie-coat primers and specific primer requirements.

Primer recoat intervals may vary from the published product datasheet when using under intumescent fireproofing products. Consult Carboline Technical Service for recommended cure times before applying Carboline intumescent products.

2.2 THERMO-SORB HB

THERMO-SORB HB is a solvent based intumescent fire resistive materials designed for the fire protection of structural steel. THERMO-SORB HB are supplied in full pails of 3.98 gallons (15.1 L) for Part A and 0.73 gallons (2.7 L) for Part B.

2.3 TOPCOATS

All topcoat systems must be approved by Carboline prior to use over THERMO-SORB HB. Contact Carboline Technical Service for topcoat recommendations.

SECTION 3: PUMP REQUIREMENTS

3.1 APPROVED ELECTRIC AIRLESS PUMPS FOR THERMO-SORB HB

The minimum recommended pump for the application of THERMO-SORB HB is a Graco Mark V, or equivalent, with an output of 1.35 gpm (5.1 L) minimum to provide an operating pressure of 3,000 psi (204 bar). Inline filters should be removed. Remove rock catcher from siphon tube. It is recommended to use a dedicated hose when spraying THERMO-SORB products.

3.2 APPROVED PNEUMATIC AIRLESS PUMPS FOR THERMO-SORB HB

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The minimum recommended pump for the application of THERMO-SORB HB is a Graco King, or equivalent, with an output to provide an operating pressure of 3,000 psi (204 bar). Inline filters should be removed. Remove rock catcher from siphon tube. It is recommended to use a dedicated hose when spraying THERMO-SORB products.

SECTION 4: SURFACE PREPARATION AND PRIMING

4.1 DEGREASING, SURFACE PREPARATION AND PRIMING

4.1.1 DEGREASING

All surfaces shall be cleaned and degreased prior to preparing the steel substrate per SSPC SP1. When selecting a cleaning method, the primer manufacturer's and project recommendations must be adhered to.

When it is necessary to clean the surface of THERMO-SORB HB before applying a further coat or top coating, solvent wiping with toluene, Thinner #19 is recommended.

4.1.2 CARBON STEEL SURFACE PREPARATION

The general requirement for steel preparation before the application of an approved primer shall meet SSPC SP2 or SP3. Refer to specific primer's product datasheet for specific requirements.

4.1.3 GALVANIZED SURFACE PREPARATION

Remove any contaminants per SSPC SP1; ensure there are no chemical treatments that may interfere with adhesion; and abrade the surface to establish a suitable roughness per SSPC-SP7. Prime with an approved primer.

4.1.4 STAINLESS STEEL SURFACE PREPARATION

All steel surfaces shall be prepared per SSPC-SP7. Prime with an approved primer.

4.1.5 PRIMING

Only primer systems acceptable by CARBOLINE shall be used under THERMO-SORB HB. The primer shall be applied in accordance with the manufacturer's and project's specification.

4.1.5.1 PRIMER THICKNESS

As previously stated, controlling the thickness of applied primers is very important. The following method will be the only one accepted by CARBOLINE:

1. Use a flat polished steel plate to calibrate the measuring device to zero.
2. Calibrate equipment device to a known thickness using manufacturers supplied shims.
3. Use the measuring device to measure individual primer coats and multi-coat thicknesses.
4. Record measurements at the rate specified by the project.
5. Thickness of primer must be sufficient to fully cover blast profile.

4.1.5.2 PRIMER REACTIVATION

If multiple primer coats are required, care must be taken to ensure that the manufacturers recommended maximum recoat time has not been exceeded. If the recoat window has been exceeded refer to the specific primer manufacturers recommendations.

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4.1.5.3 PRIMER ADHESION

The coating inspector for the project must be satisfied that the adhesion values of the primer system meet the project specification.

For field applications, existing coatings must attain a minimum 3A rating in accordance with ASTM D3359 Method A, X cut adhesion test. If acceptable, clean and lightly abrade in accordance with SSPC-SP2 or SP3 to roughen and de-gloss the surface. If not acceptable, the coating must be removed and areas re-primed with a compatible primer. Contact Carboline Technical Service for a list of approved primers and specific primer requirements

SECTION 5: MATERIAL PREPARATION & GENERAL CONSIDERATIONS

5.1 MATERIAL PRE-HEATING

Prior to use the material shall be pre-heated to a minimum of 70°F (21°C) for 24 hours prior to application. Material can be heated using heated storage units or hot rooms. These are normally constructed from storage containers that are insulated to maintain desired temperature and fitted with a suitable temperature controllable heater. Smaller custom-made hot boxes can be used for small projects to heat enough pails to maintain daily production. In hot climates the material may have to be maintained at a cooler temperature to stay within application range. Material temperature can be measured using a probe thermometer or IR gun.

Do not use electric jacket heaters that wrap around the outside of the pails. These can overheat the outside perimeter of the pails and "cook" the material around the inside making the material unusable.

5.2 MIXING

Thoroughly mix prior to use. Use 1/2" electric or air driven drill with a slotted paddle mixer. Must be 300 rpm under load (minimum).

Prior to mixing the THERMO-SORB HB, ensure the application equipment has been thoroughly flushed with a xylene thinner, such as Thinners FC150. Any alternatives must ensure that the water content is below 0.05%

1. Mix THERMO-SORB HB Part A component until homogenous, when this has been achieved, add Part B and mix until homogenous.
2. THERMO-SORB HB has a pot life of up to 60 minutes. However, it is recommended that the mixed material be used as soon as possible as the viscosity will increase during the pot life
3. Do not mix part units. Mixing part units may result in coating defects, insufficient curing, reduced performance and delamination.

5.3 MOCK-UP INSTALLATION

Prior to actual production work, a representative sample shall be prepared following all specified procedures and approved thickness / finish / surface quality. This sample must then be approved by representatives of the owner, applicator, architect and any others having a vested interest in the installation. The actual production work must follow, and conform to, the standards and approved finish / surface quality of the site sample.

The site sample is a mandatory requirement and shall be made available to all parties throughout the completion of the project.

5.4 RECORD KEEPING

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The maintaining of proper records is an essential requirement for all THERMO-SORB HB projects. The minimum requirements will be established by the project specification.

5.5 WELD CUT BACK AND SERVICE ATTACHMENTS

As heat is generated during the welding process, either during a preheating stage and/or during the welding itself, it is important that a suitable distance is left around the weld area to prevent damage to the adjacent THERMO-SORB HB.

For small weld attachments such as the addition of clips and hangers, a cutback distance of 2" (50mm) on each side of the weld areas should be sufficient. When carrying out welding close to THERMO-SORB HB, discoloration may be noted.

This discoloration denotes that the THERMO-SORB HB has received too much heat and the bond to the steel is likely to have been affected. When this happens, the discolored THERMO-SORB HB must be removed as described in Removal and Repair Procedures. For larger welds, i.e. full girth, a cutback of 12" (300 mm) each side of the weld area may be sufficient.

SECTION 6: THERMO-SORB HB APPLICATION PROCEDURES

6.1 Surface Preparation

1. Surface must be clean, dry and free of any dirt, oil, grease or other contamination prior to surface preparation.
2. Clean surface to specified standard, typically SSPC-SP1.
3. The general requirement for steel preparation before the application of an approved primer should meet SSPC-SP2 or SP3. Contact Carboline Technical Service for recommendations and specific primer requirements.

6.2 Primer Application

1. All surfaces must be clean, dry and properly prepared as stated above prior to primer application.
2. All primers must be approved by Carboline prior to use and applied within manufacturers' and projects' stated specifications. If an unknown primer has been applied, contact your Carboline Fireproofing representative for recommendations.

6.3 THERMO-SORB HB Equipment Requirements

Electric Airless:	Graco Mark V with an output of 1.35 gpm (5.1 L) minimum to provide an operating pressure of 3,000 psi (204 bar). Must have 30 mesh inline filter installed. Remove rock catcher from siphon tube.
Gun:	WIWA W500 PFP/Graco XHF PFP application gun (3/8 inch in-let) (with filters removed) or Carboline approved equivalent.
Tip Size:	0.023" - 0.027" Graco XHD Heavy duty RAC non-diffuser tips
Hose:	1/2" (150' maximum)
Whip Hose:	3/8"

6.4 THERMO-SORB HB Application

(Environmental)

1. Before applying THERMO-SORB HB, confirm that proper environmental conditions are met. Minimum ambient temperature: 5°F (-15°C) and rising, maximum relative humidity 95%, steel surface temperature must be 5°F (3°C) above the dew point.
2. Confirm that the surface has been prepared to specification.
3. Verify that a Carboline approved primer has been correctly installed to correct thickness and is properly cured. Ensure that the application is within the primer's recoat window.

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4. Confirm that adjacent areas are properly masked off.
5. Protect from heavy rain or running water over the surface of THERMO-SORB HB.

(Material)

1. Material shall be pre-heated to a minimum of 70°F (21°C) and maximum 100°F (38°C) prior to introduction to the pumping units.
2. Thoroughly mix prior to use. Use 1/2" electric or air driven drill with a slotted paddle mixer. Must be 300 rpm under load (minimum).

(Equipment Setup)

1. The pump and all lines shall be clean and free from any contamination. It is recommended to have a dedicated hose for use with THERMO-SORB HB.
2. Prior to equipment startup, ensure all pressure is removed from lines.
3. Remove rock catcher from siphon tube.

(Application)

1. Adjust to lowest pressure required to achieve the desired fan pattern.
2. Care shall be taken to keep the fan pattern at an angle of 90 degrees to the surface and at 12" (305mm) to 18" (457mm) away from the surface.
3. Material can be re-coated after 4 hours at 70°F (21°C), maximum 2 coats per day.
4. Continue building material in as many coats as required, observing the minimum recoat windows as described in the technical datasheet.
5. Special care should be taken when spraying flange edges on structural steel members to ensure complete coverage and a consistent thickness. The normal spray pattern on the outside and the inside surfaces of the flanges should cause the material to flow and wrap around the edge of the flange. If the coating on the flange edge is uneven after application, the edge shall be abraded after curing in order to provide an even surface.
6. The Applicator shall take frequent WFT measurements during application, using a penetrating measuring device to ensure that the coating is uniformly applied at the required film thickness. The thickness checks shall be made as required by the project based on AWCI Technical Manual 12-B.
7. The final thickness shall be specified in project drawings and owner specifications. Thicknesses for THERMO-SORB HB are outlined in published fire test designs. If no standard or guidance exists in project specification, Technical Manual 12-B and/or SSPC PA2 can be used for reference. All matters relating to thickness shall be decided between the owner and the applicator prior to the startup of the job.

6.5 Topcoat Application

1. Confirm that THERMO-SORB HB has been applied to the specified dry film thickness by using an electronic or magnetic dry film thickness gauge.
2. Carboline approved topcoats or topcoat systems can be used to meet project specifications for color, finish, service requirements and UV protection.
3. The THERMO-SORB HB must be sufficiently cured and be clean, dry and free of any contamination prior to topcoat application.
4. All topcoats must be approved by Carboline prior to use.
5. Ensure topcoat is applied within manufacturers' and projects' stated ambient conditions, temperature and relative humidity specifications.
6. The topcoat shall be applied in accordance with the manufacturer and project specification. Refer to the THERMO-SORB HB design for topcoat requirements.
7. When the THERMO-SORB HB specified DFT is achieved, if a topcoat is required, it is recommended to follow the guidelines below:

THERMO-SORB HB topcoat recommendation

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Intumescent DFT	<3mm	24 hours
	3mm+	48 hours

3mm = 118mils

6.6 Safety

1. Only trained and qualified applicators should install THERMO-SORB HB.
2. Follow all safety precautions on the THERMO-SORB HB SDS when applying this material.
3. Always use appropriate personal protective equipment.
4. Ensure proper maintenance and cleaning of the equipment.

SECTION 7: CLEAN-UP PROCEDURES

7.1 General Procedures

The application area shall be maintained in a clean and orderly condition. Following the application, all overspray, debris, and equipment shall be removed and the area left in a condition acceptable to the Owner and General Contractor.

1. If spray application has to stop for more than 15 minutes, the spray equipment must be cleaned.
2. Spray equipment is recommended to be cleaned after the application of every 6-8 kits.
3. Both of these helps to prevent damage to the application equipment from reacted intumescents in areas of low movement such as dead spots or cavitations.
4. At the end of use, care should be taken that the equipment is fully cleaned with no dirty solvent left in the equipment. Any dirty solvent with only a small amount of residual THERMO-SORB HB series intumescent may still react to form a gel overnight.

7.2 Equipment

1. Xylene solvent/thinners
2. Bottle wash brush
3. Cleaning cloths/rags
4. Waste containers/buckets
5. Paint brushes

7.3 ELECTRIC SPRAY EQUIPMENT

1. Finish spraying and run material from pump so the application unit double strokes.
2. Remove wet end cover (cling film) if used.
3. Remove spray tip and diffuser from spray gun.
4. Place clean container under application and pour in solvent/thinners.
5. Hold spray gun over a suitable waste container and then increase pressure on spray unit. When all unwanted material has been discharged and solvent/thinners is present release pressure.
6. Clean filter housing with bottle scrub of all residual unwanted material, then re-connect top.
7. Hold sieve over container under spray unit, then hold spray gun over sieve and increase pressure and sieve solvent/thinners.
8. Continue to sieve solvent/thinners until all residual/unwanted fibres have been collected in the sieve, then release pressure.
9. Dispose of unwanted fibres in to a suitable separate waste container.

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10. Hold spray gun over separate waste container, increase pressure and empty container under spray unit of dirty solvent/thinners, then release pressure.
11. When dirty solvent has been used, clean container, then add clean solvent/thinners.
12. Recirculate through purge/dump valve back into container.
13. Continue to flush application equipment until solvent/thinners has removed any residual Intumescent from the application unit/paint line, then release pressure.
14. Re-connect diffuser, increase pressure and clean spray tips.
15. When spray tips/fluid lines are thoroughly cleaned, release pressure. Insure there is no pressure in the application unit, then remove filter housing, inspect and clean if necessary.

7.4 PNEUMETIC SPRAY EQUIPMENT (INCLUDING WITH HOPPER)

1. Finish spraying and run material from pump so the application unit double strokes.
2. Release pressure from application unit.
3. Remove spray tip and diffuser from spray gun.
4. Pour xylene solvent/thinners into hopper and clean inside of hopper.
5. Remove wet end cover (cling film) if used where the uptake leg is inserted directly into the material container.
6. Hold spray gun over a suitable waste container and then increase pressure on spray unit. When all unwanted material has been discharged and solvent/thinners is present release pressure.
7. Hold sieve over hopper, then hold spray gun over sieve and increase pressure passing the solvent through the sieve, back into the hopper.
8. Continue to sieve solvent/thinners until all residual/unwanted fibres have been collected in the sieve, then release pressure.
9. Dispose of unwanted fibres in to a suitable separate waste container. Repeat steps 6-7 to ensure that there are no residual fibres in the system.
10. Hold spray gun over waste container, increase pressure and empty hopper of dirty solvent, then release pressure.
11. Pour clean solvent into hopper, increase pressure and continue to flush application equipment until solvent/thinners runs clear, then release pressure.
12. Re-connect diffuser, increase pressure and clean spray tips.
13. When spray tips/hopper/fluid lines are thoroughly cleaned, release pressure and disconnect airline. Insure there is no pressure in the application unit, then remove filter housing/hopper, inspect and clean if necessary.

SECTION 8: REPAIR PROCEDURES

8.1 PATCHING SMALL DAMAGED AREA

The procedure for damage repair will depend on the extent of the damage. For large areas, such as full structural elements, it may require return to the original application process.

For smaller areas, the following procedure may be used:

8.2 TOPCOAT ONLY DAMAGE

1. Remove all loose or unsound coating to a firm edge and chamfer the edges using abrasive paper.
2. All surfaces should be clean, dry and free from contamination.
3. The original topcoat should be reinstated in compliance with the original specification.

8.3 INTUMESCENT (AND TOPCOAT) ONLY – PRIMER IS INTACT

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1. Remove all loose or unsound coating to a firm edge and chamfer the edges using a sharp knife, making sure not to damage the primer, or abrasive paper.
2. The primer surface must be lightly abraded.
3. All surfaces should be clean, dry and free from contamination.
4. The original specification should be reinstated in compliance with the recommended DFT's and overcoating windows.

8.4 DAMAGE TO THE SUBSTRATE – PRIMER IS DAMAGED

1. Remove all loose or unsound coating to a firm edge and chamfer the edges using a sharp knife
2. Any and all corrosion products must be removed.
3. Prepare the substrate to an appropriate level, ensuring that the surface is not polished if hand tools are used.
4. For C1-C2 the THERMO-SORB HB can be applied to the freshly prepared steel. Agreement from the responsible project owner should be sought if this deviates from the original specification.
5. For C3, C4, C5 you must reinstate the primer to the original specification ensuring that there is no overcoating of any adjacent intact intumescent coating.
6. Continue to reinstate the original specification in compliance with the recommended DFT's and overcoating windows.

SECTION 9: CONNECTIONS AFTER APPLICATION

9.1 CLAMP ON CONNECTIONS INSTALLED AFTER APPLICATION OF THERMO-SORB

Examples of clamp on connections include pipe, sprinkler pipe and utilities support brackets. Small to medium size clamps and clips are usually left unprotected. Large clamps and clip supports are usually protected with the same thickness as the structural member, due to the possibility of heat transfer. These connection details are not usually addressed in the fire test design information. It is recommended that the Authorities Having Jurisdiction be consulted for approval.

Where support clamps are required to be protected, the coating should be applied where the clamps are in contact with the structural member, and for four inches beyond the structural member. Refer to the Thermo-Sorb application instructions above for information including product limitations, required surface preparation, humidity, temperature, application rates, cure times, and topcoat application.

If Thermo-Sorb is damaged when the clamped connections are removed, the affected area should be touched up in accordance with "PATCHING SMALL DAMAGED AREAS" above.

9.2 WELDED CONNECTIONS INSTALLED AFTER APPLICATION OF THERMO-SORB HB

Welded items such as plates and wide bracket supports are usually protected with the same THERMO-SORB HB thickness as the supporting member due to the possibility of heat transfer. These details are usually not addressed in the fire test design information. We recommend the Authorities Having Jurisdiction be consulted for approval and confirmation of their requirements.

Prior to welding connections, remove the THERMO-SORB HB to a minimum of three inches beyond the area to be welded by using a grinder, utility knife, chisel or sandblasting. Remove an additional ¼ inch of topcoat by using a medium grit sandpaper. After welding is complete, clean the steel surface to remove all dust, grease, dirt, etc...that would affect

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the bond, and reapply the specified primer. Apply the Thermo-Sorb to the areas in need of repair and to the connecting items if required.

9.3 BOLTED STEEL CONNECTIONS INSTALLED AFTER THE APPLICATION OF THERMO-SORB HB

Bolts of threaded rods of $\frac{3}{4}$ inch diameter or less are usually left unprotected. Bolts or threaded rods greater than $\frac{3}{4}$ inch diameter are usually protected with the same thickness of THERMO-SORB HB as the supporting member, due to the possibility of heat transfer. These connection details are usually not addressed in the fire test design information. We recommend the Authorities Having Jurisdiction be consulted for approval and confirmation of their requirements. If drill oil is used, oil should be cleaned as soon as possible.

If THERMO-SORB HB is damaged after drilling, the damaged area should be touched up in accordance with "PATCHING SMALL DAMAGED AREAS" above. If there is no damage to the THERMO-SORB HB system after drilling, no additional treatment is required.

SECTION 10: TRANSPORT AND STORAGE OF APPLIED STEELWORK

1. Once the required THERMO-SORB HB thickness has been achieved, the protected steelwork may be stored internally, protected from weathering until transport is required.
2. If storage is to be external, the full coating system must be fully dried and cured.
3. Storage should be done in a way that minimises damage to the coating system. This can be achieved by the use of wooden batons between pieces rather than face to face contact and storing on the flange tips to minimise the surface area of any potential damage.
4. Lifting should be done using lifting points, D shackles and lifting eyes wherever possible. Lifting chains should be avoided, and slings used preferentially.
5. Any damage sustained in storage or transport should be corrected as soon as possible, reinstating the original specification.

SECTION 11: SITE WORK

If THERMO-SORB HB is exposed to sulphur oxides or nitrogen oxides, such as present in diesel exhaust fumes, immediately after application and during the curing process then discolouration may occur. A slight pink or brown hue may be visible. This is cosmetic only and there is no impact or effect on the fire performance of the intumescent.

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