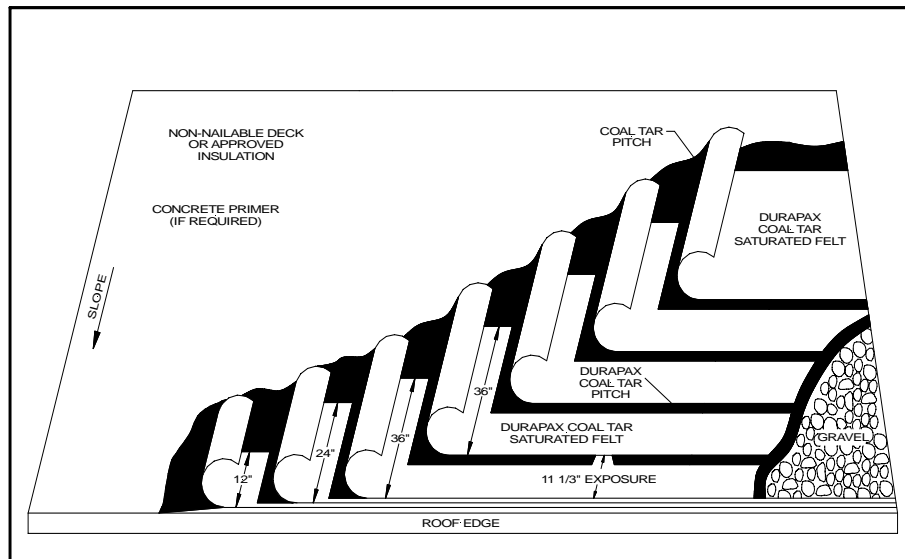


## Coal Tar Membrane System Specification No. RP-41-3 (Coal Tar Saturated Organic Felts)



| Temperature Guidelines Coal Tar Pitch ASTM D-450, Type I |                            |
|--|----------------------------|
| Point of Application Range (EVT)                         | Kettle Temperature Maximum |
| 360 ± 25 degrees   | 400 degrees                |

### ATTACHMENT OF INSULATION

(If Required)

Over the prepared deck, install the specified insulation board in a solid mopping of hot bitumen (coal tar or asphalt) or by mechanically fastening, whichever is required for the specific project/condition.

The type of attachment will affect the required board size. 4'x8' board size must always be mechanically fastened. 4'x4' and smaller boards can be either mechanically attached or set in hot bitumen.

NOTE: Double layer applications are preferred whenever possible. When the first layer of insulation is mechanically fastened, *an overlay board set in asphalt or insulation adhesive is required for 15 and 20 year warranties*. When only one layer is used and mechanically fastened, an organic base sheet mopped in asphalt is required as the first ply of the membrane system.

If a second layer of insulation is required, it is recommended that it be set in a solid mopping of steep asphalt, staggering the joints of the upper layer the maximum distance possible from the joints in the base layer. All boards should be laid with edges firmly butted, but not forced together.

No more insulation should be installed than can be made weather tight with the complete membrane

### NON-NAILABLE DECKS

Poured Concrete

Precast Concrete

### INSULATION

(Approved Types)

### SLOPE

0" - 1/2" per foot (MAXIMUM)

### MATERIALS

Durapax Coal Tar Saturated Felt

(3 plies)

Durapax Coal Tar Pitch

(Type I)

Aggregate Surfacing (gravel or slag)

### GENERAL REQUIREMENTS

The following recommendations and application procedures are a brief summary. They are intended to be used only as a general description of this particular assembly and do not represent all information or requirements necessary to bid or install a roof project. Additional information is available in the

Durapax Coal Tar Commercial Roofing Systems Application & Design Considerations publication. Follow the National Roofing Contractors Association guidelines, applicable building codes, insurance requirements and good roofing practice.

If UL or FM approval is required, consult UL, FM and Durapax for specific requirements.

### SURFACE PREPARATION

All substrate materials must be solid, clean, dry, meet applicable code requirements, be properly installed and suitable for use with the membrane system.

If attachment of insulation is to be in steep asphalt, concrete decks are to be primed with asphalt primer first. The primer should be allowed to dry before proceeding with the work. Priming is not necessary on poured concrete decks, if coal tar pitch is used to attach the insulation.

system in the same day.

Depending on the particular application, special fasteners and/or plates may be required.

## APPLICATION OF MEMBRANE

(Direct to Deck or Insulation)

Over the deck/insulation, immediately install three (3) plies of Durapax Coal Tar Saturated Organic Felt, shingle fashion, lapping each sheet 24 2/3" over the preceding sheet. Each ply shall be set in a solid mopping of hot coal tar pitch and broomed into place.

End laps shall be no less than 10" and staggered between plies.

*The total membrane system must be completed at one time.*

All plies must be pressed (broomed) into the coal tar pitch while it is still hot to insure total adhesion. At no place shall ply touch ply.

Install 45° cant strips at the intersection of all vertical and horizontal surfaces, such as walls, equipment curbs, expansion joints, etc.. All plies must extend to the top of the cant strip but no further than two (2) inches above its top edge. Care must be taken to assure that all plies conform tightly to the cant.

At all horizontal edge details, such as at gravel stops, raised edge perimeters, vent pipes, pitch pockets, etc., an organic envelope or some other type of pitch dam must be provided to avoid pitch migrating from between the plies. *Durapax does not accept responsibility for pitch drippage.*

## APPLICATION OF PITCH

Interply moppings shall be continuous and not less than an average of 20 lbs. per 100 square feet.

Whether applied by mop or mechanical spreader, the coal tar pitch

must be sufficiently hot to adhere the system. It must not, however, be heated to temperatures greater than recommended. (See Temperature Guidelines)

It is extremely important that all interply moppings be as thin as practical, but continuous without interruptions or voids. Heavy moppings can contribute to roof slippage on sloped roof designs. *Durapax will not be responsible for membrane slippage.*

Recommended bitumen application rates are offered only as a guide and can vary depending upon many factors. Actual experience by the contractor must be considered when estimating project requirements.

## FLASHING INSTALLATION

Prior to installing the aggregate surface, all flashings must be complete.

Install composition base Flashing in accordance with the applicable specifications. Appropriate Flashing specifications and details can be found at [www.durapax.com](http://www.durapax.com) or by contacting Durapax directly at 610-579-9075.

## AGGREGATE SURFACING

Over the entire membrane surface, apply a uniform coating of hot coal tar pitch at an average rate of not less than 70 lbs. per 100 sq. ft. While the coal tar is still hot, embed 400 lbs. of gravel or 300 lbs. of slag per 100 sq. ft.

*The application of the top pour and aggregate surfacing must be installed the same day the felts are applied. If the weather is hot and dry and there will not be any morning dew, then the felts may be left overnight ONLY. Should they be left overnight, the surface of the membrane must be glaze coated with hot coal tar pitch. The glaze coat must*

*be without skips or pinholes and the aggregate surfacing must be installed the following day.*

Before top pouring the membrane with pitch and embedding the aggregate, the roof membrane must be inspected to determine that all plies are lying smooth and foreign materials have been removed.

To obtain the desired top coating of pitch, it shall be applied either by pouring or through a mechanical applicator designed and regulated for this purpose. *Durapax will not be responsible for migration of the top pour and aggregate surfacing.*

The aggregate used shall be reasonably clean, dry, and meet ASTM D-1863 standards. The aggregate must be spread into the hot top pour while it is still hot enough to achieve the required bonding.

## MATERIAL PROTECTION

All materials shall be kept clean and dry prior to their installation. When stored outside or on a job site, materials shall be kept off the ground and adequately covered with tarpaulins.

## OTHER

Florida Roofing Application Standard (RAS) NO. 150 must be followed, at a minimum, for all projects in Florida.