CRCA CANADIAN ROOFING CONTRACTORS ASSOCIATION

Technical Bulletin

VOLUME 33 August 1986

Glass Fibre Roofing Felts - Special Application Techniques Are Required

The Canadian Roofing Contractors' Association has recently completed an important revision of its Specification Manual. We recognize the need to keep specifying authorities, and our roofing contractor members abreast of the many technological changes that have taken place during the last 5 years.

The construction of a built-up roof membrane to date was essentially based on the use of organic asphalt saturated felts. We will now have specifications based on the use of glass fibre roofing felts. One of the important properties of glass fibre felts is their inherent resistance to moisture and since the glass fibre felt is porous it will ensure that no moisture will be trapped between the plies of the membrane during the roof construction, thereby minimizing considerably the possible formation of blisters.

A minimum of 4 plies of glass fibre is required, which is the same as our requirement for organic felts.

A built-up roof membrane based on glass felts can either be surfaced with gravel or left smooth. The smooth surfaced roofs can either be coated with an asphalt emulsion or a coloured or reflective coating.

Application Techniques for Glass Felts

The application and handling characteristics of glass fibre felts used to construct a B.U.R. membrane are quite different from those of the #15 organic saturated felts. Roofing contractors using glass fibre felts for the first time should require assistance from the manufacturer in order to avoid some of the pitfalls in their use.

Brochure on Do's and Don'ts

A Brochure titled "Application Techniques for Glass Fibre Roofing Felts", prepared by Richard Baxter, a U.S. roofing contractor, is available from the office of the National Roofing Contractors Association, 8600 Bryn Mawr Avenue, Chicago, Illinois, U.S.A. 60631. This brochure on **Do's and Don'ts** should be very helpful to the roofing contractor.

Below are some of the principal techniques advocated by Dick Baxter when using glass fibre felts.

Application Tips

- Ensure that no heavy objects (including roofers) remain in one place longer than a few seconds on portion of the roof where the interply asphalt has not yet set (hardened). Excess pressure will "squeeze out" the still soft bitumen between the layers of felt thereby creating a permanent void.
- Brooming-in of the felts usually not necessary with glass fibre felts due to their porosity.
- Do not walk behind the glass fibre felt roll white "kicking them in". Unroll from insulation or deck side of the roll.

2430 Don Reid Drive, Suite 100, Ottawa, ON K1H 1E1
1-800-461-2722 | Tel: (613) 232-6724 | Fax: (613) 232-2893
Email: crca@roofingcanada.com | www.roofingcanada.com

- Avoid working back on the newly installed glass fibre roof membrane.
- All fishmouths are to be cut and objects causing the separation between the plies are removed. Glass fibre felts have a strong memory.
- Do not attempt to "dry-in" with less than 2 plies of glass fibre felt.
- Do not construct water cut-offs with glass fibre felts.
- Ensure that interply moppings are uniform and at the nominal rate of 1.2 kg/m².
- Cut glass fibre felts at all changes in plane, otherwise its strong memory will result in dislocation at hard corners or around projections. Consider alternative materials for the bituminous flashing application.
- Ensure that the application temperature of the asphalt is close to the recommended Equiviscous Temperature range (EVT).
- Install aggregate surfacing only after completion of the whole roof system including flashings, accessories, metal, etc.
- For smooth surfaced roofs apply only enough asphalt to "seal" the tip of the glass felt.