



Sampling and Analysis of Bituminous Roofing Membranes

This bulletin supersedes all previously written or verbal statements by the Canadian Roofing Contractors' Association on the subject.

Cut tests weaken the membrane and must be kept to a minimum. Furthermore the evidence found in a cut test is applicable only to that immediate area due to the nature of the built-up roofing process. Proper interpretation of the evidence requires experience.

Existing Roofs

When sampling is required existing built-up roofing membranes will be sampled, the samples analyzed and the report completed according to ASTM D2829 - Standard Recommended Practice for Sampling and Analysis of Built-Up Roofs. This procedure is not intended for new construction inspection. New construction with completed surfacing should not need sampling and analysis if prior inspection work has been adequate. Note that no frequency of sampling is given because the cut tests should be made only in problem areas.

New Roofs

When sampling is required new built-up roofing membranes will be sampled, the samples analysed and the report completed according to ASTM D3617 - Standard Recommended Practice for Sampling and Analysis of New Built-Up Roof Membranes. Under this recommended practice specimens are removed prior to the application of flood coating and top surfacing. Note sampling frequencies are given.

Flashings

When sampling is required bituminous membrane flashings will have samples taken from above the cant strip and measuring at least 100 mm in width. The samples will be visually inspected for number of plies and bond between plies. Sampling frequency on long walls will be one sample every 30m; on short walls one per wall. In each case evidence of error or poor workmanship may indicate more frequent sampling. Make adequate repairs using at least the same number of felt plies as in the original membrane; overlap each side of the cut; carry plies to toe of cant and, where practicable, fasten along top edge.

Where the ASTM recommended practice refers to ASTM material specifications and there is a Canadian Standards Association (CSA) specification for the material the latter will apply.

Individual ASTM standards are available as separate publications from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, USA. An ASTM standard can be revised at any time but must be reviewed every five years.

The Canadian Roofing Contractors' Association is a member of ASTM and has representation on these committees.