

**APPLICATIONS** 

### **TECHNICAL BULLETIN**

TECHNICAL DATA SHEET 180709SCANE (supersedes 18

ROOFS

# SUBJECT: DIFFERENCES BETWEEN SOPRASPHALTE M, COLPHENE H AND SOPRASPHALTE OX

Bitumen and asphalt are synonyms.

The name may change according to manufacturers and regional trends. Therefore, it is important to choose the right product based on the various bitumen/asphalt characteristics, as described in the technical documentation of bitumen-based waterproofing product manufacturers.

There are differences between the bonding bitumen called SEBS (SOPRASPHALTE M), the liquid waterproofing membrane called hot rubberized asphalt (COLPHENE H) and Type II or III oxidized bonding bitumen (SOPRASPHALTE OX).

The first two products are synthetic rubber polymer-modified bitumen. The first is modified with SEBS polymers while the other is modified with SBS polymers. Therefore, both contain rubber despite the fact that only liquid membranes are popularly known as rubberized asphalt.

Each product is tested according to a separate standard.

SEBS bitumen must meet a restrictive standard regarding its composition (ASTM D6152). It contains only bitumen and polymers without any other additives. It is intended to be used as adhesive bitumen for prefabricated membranes, insulation products, and other roofing panels. It can withstand higher temperatures and is more resistant to oxidation.

Rubberized asphalt (SBS) must meet restrictive criteria related to its expected performance as a waterproofing membrane (CGSB-37.50). It contains bitumen, polymers and mineral fillers. It must be used in conjunction with reinforcement to create an in-situ membrane in protected-membrane roofing systems (inverted roofs), bridges, foundations, and other below grade applications.

Oxidized bitumen is used to adhere roof components and must comply with CSA A123.4-04 Standard requirements. It must meet the minimum required properties mainly related to softening temperature, flash point and penetration resistance. With its polymer-free content, it offers low stretching and bending properties, especially when exposed to cold temperature. Also, its heat resistance is inferior to that of polymer-modified bitumen. Because of its lack of flexibility, some restrictions may apply when adhering prefabricated modified bitumen membranes.



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Rubberized asphalt must be heated in a double-jacketed oil bath melter with mechanical agitation, while SEBS may be heated in the same melter as that used for oxidized bitumen. Although SEBS can be affected by heat if the recommended heating temperatures are not observed, it is less heat sensitive than SBS.

Summary:

#### SOPRASPHALTE M

Contains bitumen and SEBS polymers only; To be used only for bonding prefabricated membranes as well as insulation and cover boards; Meets ASTM D6152 Standard.

#### **COLPHENE H**

Contains bitumen, SBS polymers, and mineral fillers; To be used only as heat-applied liquid waterproofing membrane along with a reinforcement; Meets CGSB-37.50 Standard.

### SOPRASPHALTE OX

Contains oxidized bitumen only;

It is used to adhere insulation, covering boards and multilayer membrane systems made of organic felt or fibreglass. It can also be used to adhere SBS-modified bitumen basesheet. However, SOPREMA does not allow the use of oxidized bitumen to adhere granulated cap sheet membranes made of SBS-modified bitumen. Complies with CSA A123.4-04 Standard.

- END OF THE TECHNICAL BULLETIN-



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