

Low temperature behaviour of SASOBIT modified asphalt mix



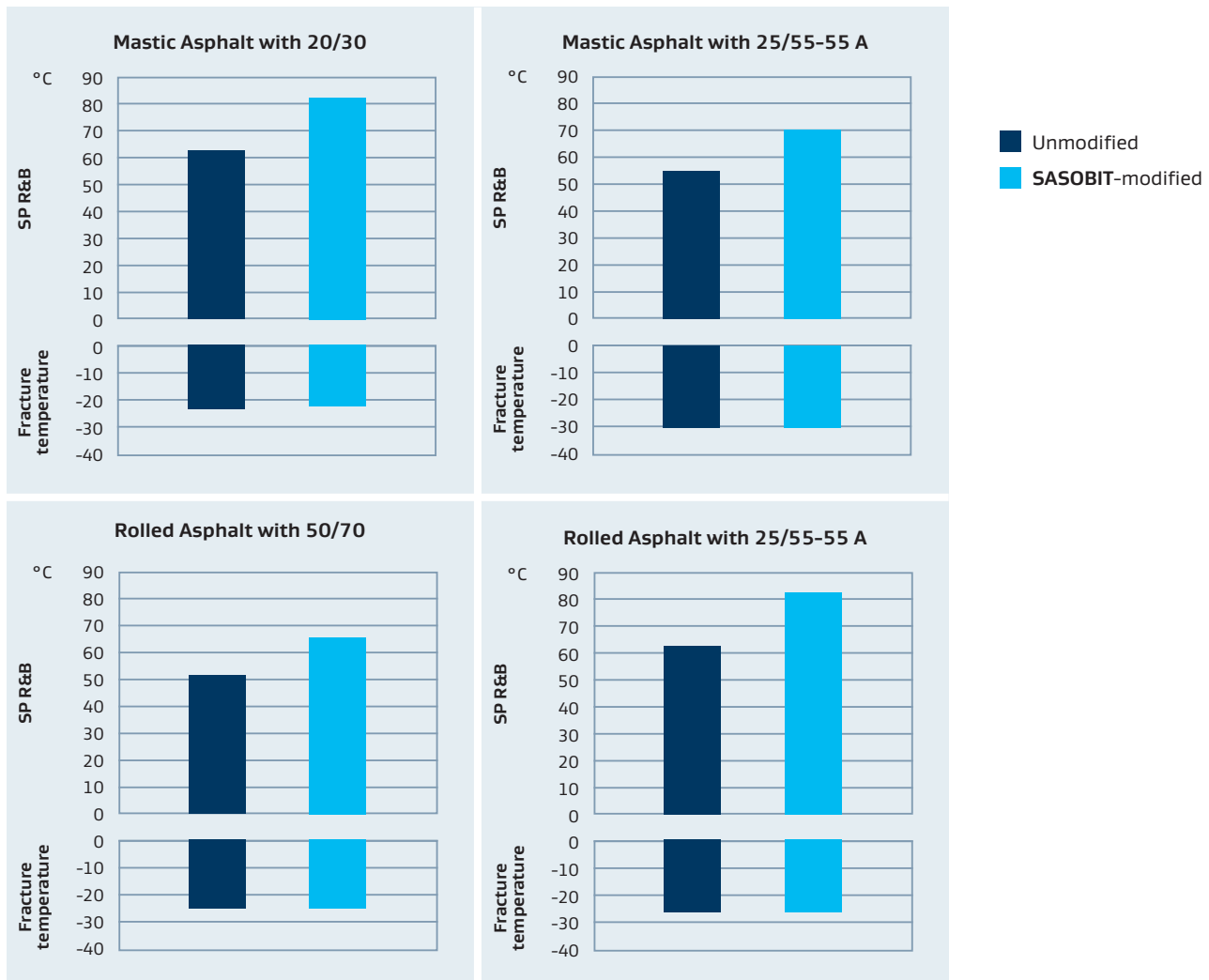
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In general modifying bitumen with **SASOBIT** increases Softening Point Ring and Ball (SP R&B) and decreases Penetration. Frequently, this changes lead to the conclusion that low temperature behaviour is impaired.

To disprove this conclusion for **SASOBIT** modified asphalt mixes, the cooling test (TSRST) has been carried out for certain asphalt mixes. In addition the SP R&B of the used binders have been measured respectively.

Results of the cooling test (TSRST) as well as SP R&B

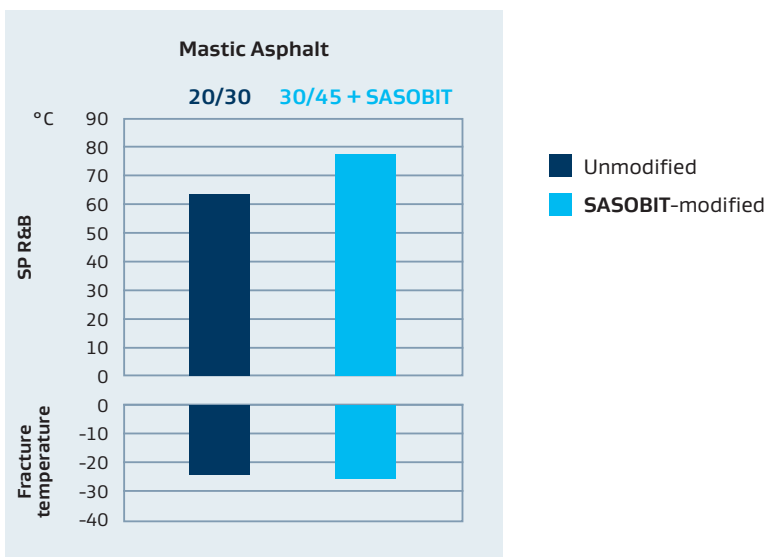


Source: Lab tests at asphalt-labor Schwerin and IFM Schellenberg

Conclusion

- **SASOBIT** modification does not significantly impair low temperature behaviour
- Low temperature behaviour is mainly determined by the base bitumen

The following figure shows SP R&B and fracture temperature of 20/30 in comparison to a 30/45, meaning the next softer bitumen grade + **SASOBIT**. Using a softer bitumen grade usually improves low temperature behaviour, but affects deformation resistance.



Source: Lab test from IFM Schellenberg

Conclusion

A softer bitumen grade + **SASOBIT** has at least the same asphalt mix performance as the originally chosen harder and unmodified bitumen grade.

Sasol Chemicals Performance Solutions Asphalt Additives

Anckelmannsplatz 1, 20537 Hamburg, Germany

Tel.: +49 171 429 3849

sasobit@de.sasol.com

www.sasobit.com

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