



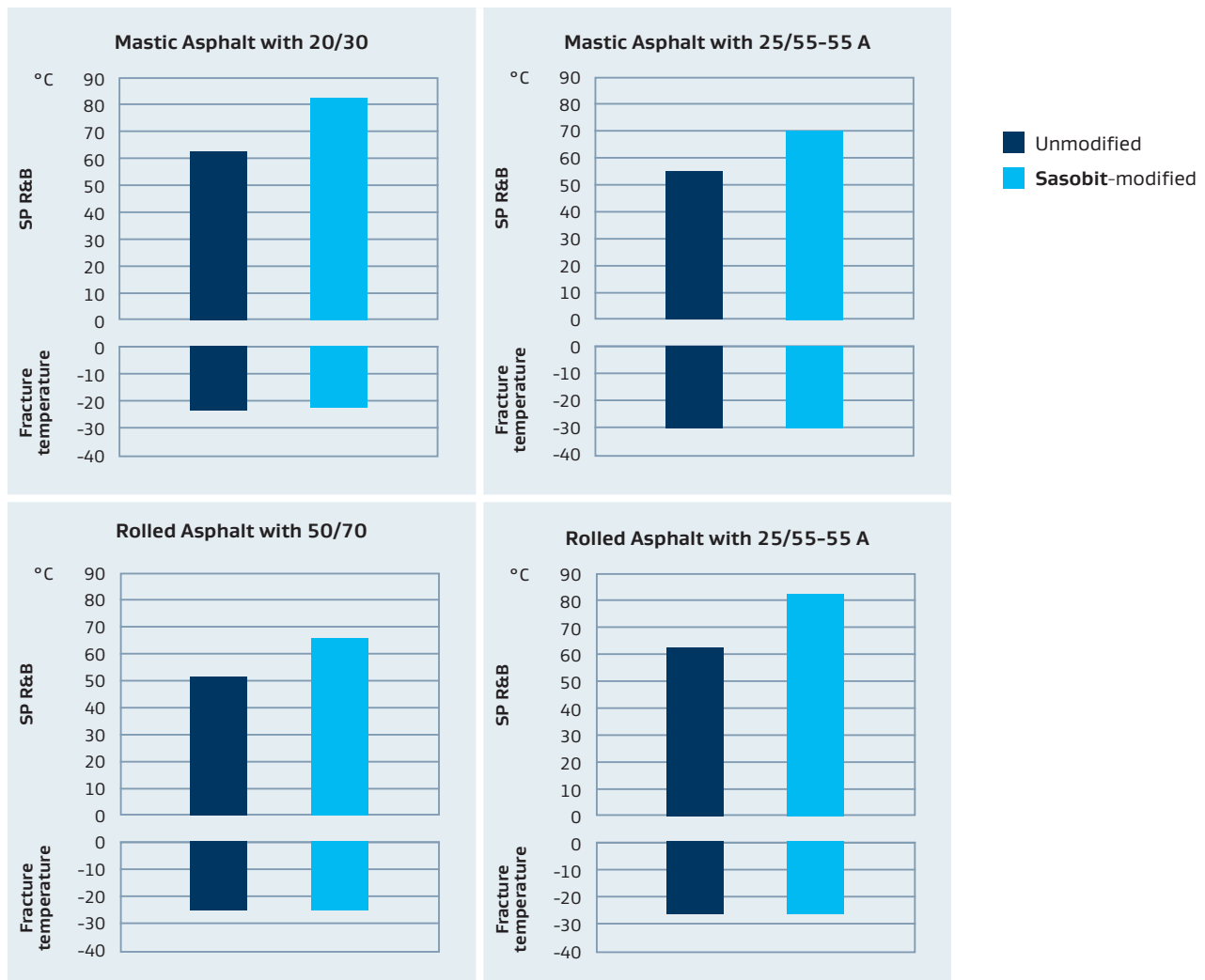
Low temperature behaviour of Sasobit modified asphalt mix

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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

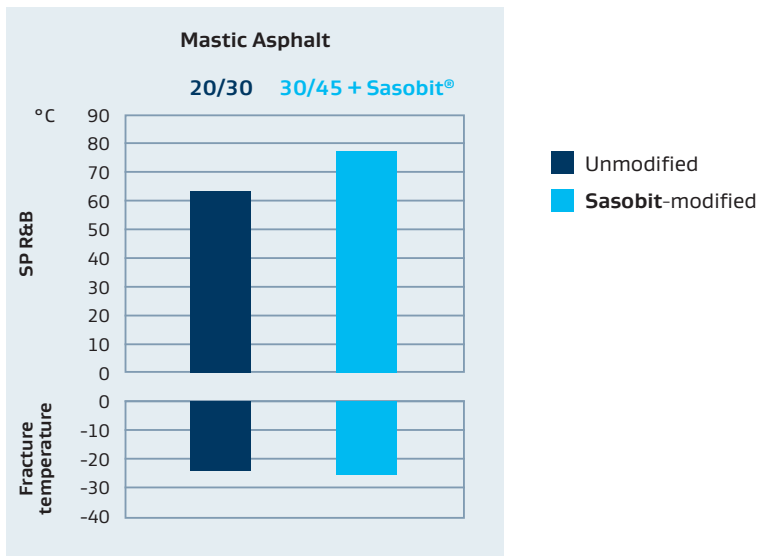


Source: Lab tests at asphalt-labor Schwerin and IFM Schellenberg

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.

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