

## **Rail Profile Selection Method to Reduce Gauge Corner Cracking Initiation**

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Gauge corner cracking (GCC) occurs on heat treated rails of the high rail in curved sections with a radius of 600 to 800 m. In our previous research, we proposed a countermeasure method for suppressing the GCC initiation by applying a rail with worn profiles to the high rail in curved sections to reduce contact pressure between wheel and rail. In this study the cross-sectional rail profile that is the most effective in suppressing crack initiation was selected by numerical analysis for the high rail in curved sections with a radius of 600 to 800 m.