

Investigation on Rail Pad Impact Load Response Characterization by the Impact Load Test

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The impact force due to surface irregularities such as rail joints and/or wheel flats is a cause of vibration, noise and track deterioration that is required to decrease. The rail pad is a major buffer component of the track. However, an adequate method has not been established as yet to evaluate a propagation mechanism of impact loads and the performance characteristics of rail pads under the impact load. In this paper, we describe the impact response characteristics of rail pads measured with the impact test method. In addition, we carried out a study on the propagation mechanism with nonlinear dynamic FEM analysis.