

Development of Rail Noise Insulating Material for Rail Joint Considered for Maintenance

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In general, an intense degree of noise is generated due to rail vibration derived from train passage on a rail joint. Therefore, development of the material that is easy to install and an effective countermeasure for the generated noise around rail joint is requested. For the rails in the general sections of railway lines, we have developed a new material named “Rail Noise Insulating Material”, and have found out that the material was effective for reducing the noise radiated from rail and was easy to install. Therefore, based on Rail Noise Insulating Material, we have further developed a new material for rail joint named “Noise Insulating Material for Rail Joint”. This material is installed at a location approximately 100mm distant from the rail in order that the rail can be inspected after installation of the material. As the results of impact test and motorcar test executed at the rail joint on track in Hino civil engineering testing station, it revealed that the material was effective to reduce the noise radiated from the rail joint.