

Simple Evaluation of Water Permeability in Cover Concrete by Water Spray Method

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The near-surface layers of concrete structures (or cover-concrete) play a crucial role in preventing reinforcing bars embedded in the concrete from corrosion. From the viewpoint of improvement in the durability of reinforced concrete (RC) structures, establishment of on-site testing methods for evaluating the permeability of cover-concrete has become increasingly important in recent years. Therefore, we RTRI have developed a simple testing method, named Water Intentionally Spraying Test or WIST, with especial emphasis on the applicability to the inspection of railway RC structures. By using the latest WIST A-method which is reported in the current paper, it is possible to easily evaluate the cover-concrete quality by visual inspection with the use of a simple implement for spraying a small amount of water.