Effect of Temperature on Corrosion Rate of Reinforcing Bar in Concrete

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It is necessary to grasp the present corrosion loss of the reinforcement, and estimate progress of the corrosion loss, in order to maintain concrete structures appropriately. However, we have known that the corrosion rate of the reinforcement varies sharply depending on the environment and that it is different between in the summer and in the winter even for the same structure. We investigated the relationship between the temperature and the corrosion rate of the reinforcement. As a result, it has been known that the corrosion rate rises in proportion to a rise in the temperature, and that variable value of corrosion rate of reinforcement per 1 $^{\circ}$ C is proportional to corrosion rate at 20 $^{\circ}$ C.