

3. Investigation of Aging and Application Limit of the UU Lining Method

Koichi Nishiyama, Toshiyuki Ishii, Ken Numata, Akihiro Tsuda

The UU lining method has been used for a number of structures to block deterioration factors, cut off water and prevent abrasion and exfoliation. Cases are increasing today in which the use of the method is investigated for preventing abrasion and water cut-off, and the needs are predicted to increase further. The use of the method started in February 2000, and thus 9 years have passed after the completion of the initially built structures. Because understanding the present states of the structures is a best method for assessing the performances and durability of the method, their changes over the passage of time were investigated.

Tests that have been performed for checking the performance of the UU lining methods in these 9 years have shown slight drops in adhesion under humid conditions. In this study, a test was performed to investigate whether adhesion has continued to decrease over time. The application limit of the UU lining method and a countermeasure that involves use of an improved base conditioning agent were also investigated. The results of the observation and tests are described.

Key words : Urea urethane, abrasion resistance, flange lining system over steel girder, waterproofing of slab, adhesion