

# 13. The Evaluation of Stain-Resistant Performance of Finishing Material for External Wall

## -Part1 The Test Results to Exposure 6 months-

Masafumi Moteki, Yoshio Ogawa, Yusuke Nakamura

The exposure test has been carried out on stain-resistant performance of 53 types of paints and 5 types of photo catalysts. The results of 6 month exposure test is as follows.

- i) Staining proceedings of each types of paint were similar in both of exposure site, Thukuba and Sagamihara.
- ii) In the view point of environment conservation, thin organic solvent or water solvent have willingly used for measuring against VOC. The stain-resistant performance of thin organic solvent is better than that of organic solvent in the case of some types of paint and less in the other case of paint.
- iii) Comparing the stain-resistant performance by types of resin, photo catalyst is the particularly best, then next order is fluoro-resin paint, acrylic urethan resin paint, and acrylic silicon resin paint.
- iv) Comparing the stain-resistant performance of ordinary paint with that of stain-resistant paint, the average of the performance of stain-resistant paint is better than that of ordinary paint in each type of resin. But the performance of some stain-resistant paint are less worse than ordinal ones.
- v) The water contact angle of the surface correlate with lightness. So, smaller is the water contact angle, better is the performance of stain-resistant.

**Key words** : stain-resistant, lightness, water contact angle, exposure test