

15 year exposure test result in a general environment

[Objective]

Verify the anti-corrosion performance of ROVAL and Hot-Dip Galvanizing by an atmospheric exposure.

[Duration]

From: July 15th 2002, Reported: July 15th 2017 (and still on progress)

[Method]

In accordance with "JIS Z 2381(2001)

"General requirements for atmospheric exposure test"

Condition: Direct exposure with south face 30-degree.

Ref. Test station



[Test Piece]

Name	Size	Type of steel
Structural rolled steel (Middle grade sand-blasted)	300*150*1.6	JIS G 3101 (SS-400)
Hot-dip galvanized plate (JIS H 8641 HDZ55)	300*150*3.2	JIS G 3101 (SS-400)

[Location]

Japan Paint Inspection and Testing Association West Branch

[Evaluation Method]

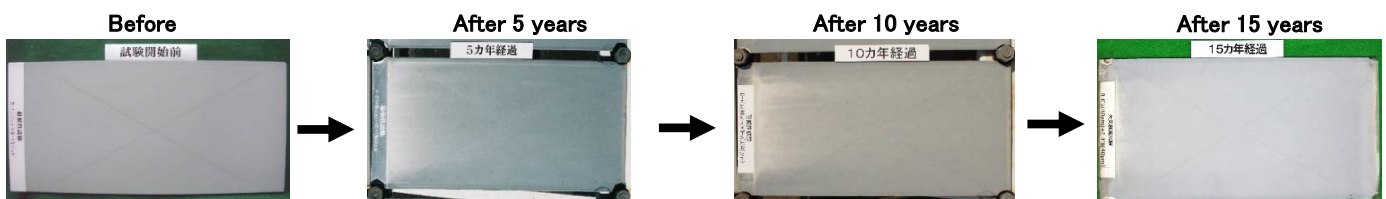
Evaluation by visual observation

[Result]

Evaluation after 15-year atmospheric exposure

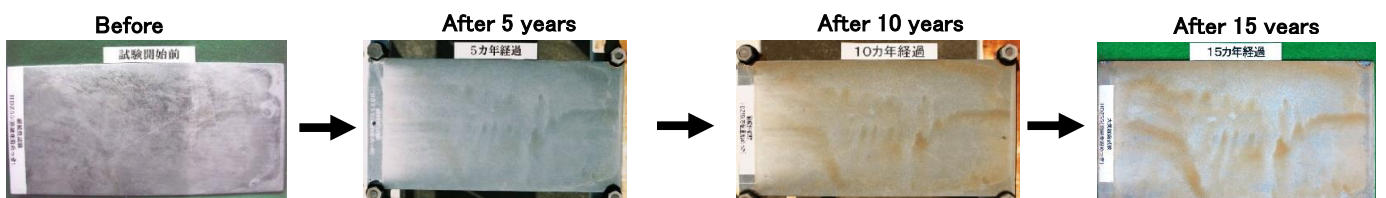
ROVAL (Film thickness: 80µm)


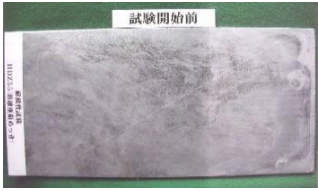
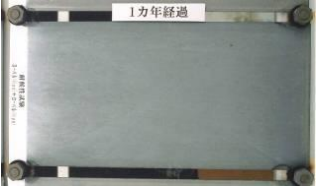
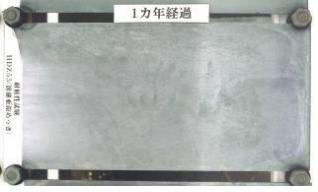
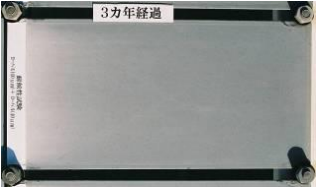













Color change of the film was seen but stayed without rust for 15 years.



Hot-Dip Galvanizing (HDZ55)

Rust occurred on gray zone, which is probably due to corrosion of ferrous of zinc-ferrous alloy layer. However, the rust was only on its surface and not heavy.



	ROVAL	Hot-Dip Galvanizing (HDZ55)
Before exposure	 試験開始前	 試験開始前
1 year	 1力年経過	 1力年経過
3 year	 3力年経過	 3力年経過
5 year	 5力年経過	 5力年経過
7 year	 7力年経過	 7力年経過
9 year	 9力年経過	 9力年経過
11 year	 11力年経過	 11力年経過
13 year	 13力年経過	 13力年経過
15 year	 15力年経過	 15力年経過

*Bightness of the pictures are different.