

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]

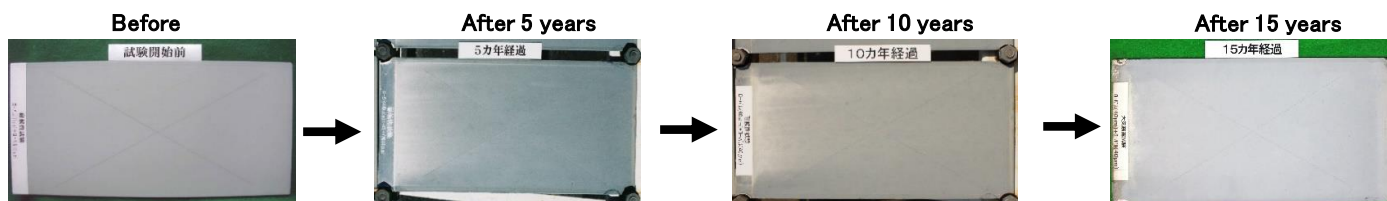
Evaluation by visual observation

[Result]

Evaluation after 15-year atmospheric exposure

ROVAL (Film thickness: 80µm)

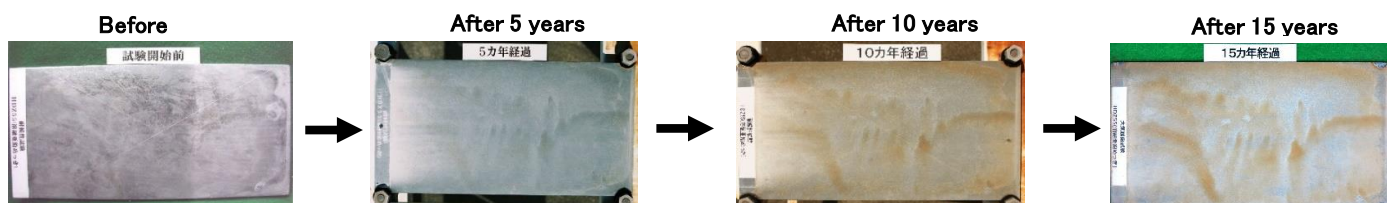
Color change of the film was seen but stayed without rust for 15 years.


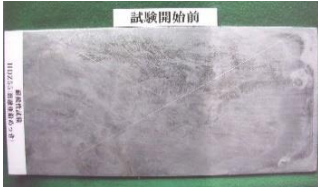
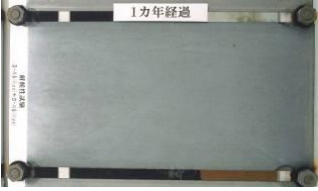
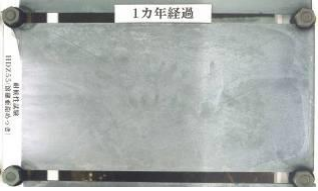
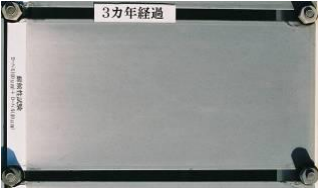











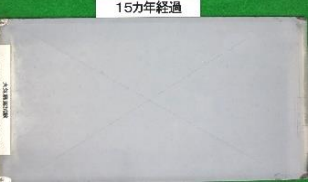



Hot-Dip Galvanizing (HDZ55)

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		
1 year		
3 year		
5 year		
7 year		
9 year		
11 year		
13 year		
15 year		

*Bightness of the pictures are different.