

# Nichigo G-Tape Technical Report

## Long Term Water Sealability

### Nichigo G-Tape 3040BK

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#### 1. Test Objective

Nichigo G-Tape 3040BK has been used in building construction fields for a long time. It has been confirmed by professional people that 3040BK has high weather resistance and excellent waterproof including long term sun lights exposure. The objective of this test is to evaluate 3040BK's long term waterproof feature against heat or UV. We conducted accelerated test by temperature (heat) testing chamber or super UV chamber. Waterproof feature of 3040BK was measured by nail water seal test over time.

#### 2. Test Method

##### 2-1) Nail water seal test

We estimated waterproof feature of 3040BK as below steps (Fig. 1,2).

- Step 1 : Place tapes on waterproof plywood
- Step 2 : Drive Nails on plywood (Penetrate)
- Step 3 : Pour colored water (Height : 0.4 inch)
- Step 4 : Set a cup under each Nail
- Step 5 : Wait for 24 hours at room temperature
- Step 6 : Inspect backside of plywood by eye

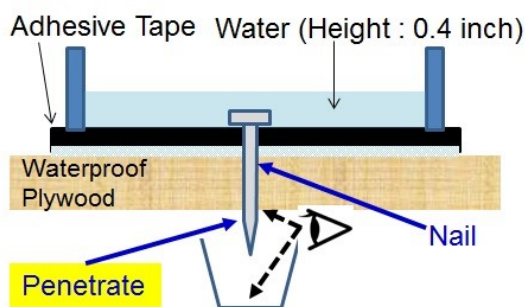


Fig.1 Estimated image of nail water seal test



Fig.2 Appearance during nail water seal test

### 3. Nail water sealability by heat accelerated test

3040BK didn't show water leakage or any visible changes after 20 year equivalent test by heat (Fig. 3)

Chart.1 Water Leakage after storage at 194F

Water Leakage after storage at 194F					
Storage period (194F)	Initial	17.5days	35days	52.5days	70days
Equivalent year	0	5years	10years	15years	20years
<b>3040BK</b>	No leak	No leak	No leak	No leak	No leak

### 4. Nail water sealability by UV accelerated test

3040BK didn't show water leakage or any visible changes after 20 year equivalent test by UV (Fig. 4).

Chart.2 Water Leakage after super UV exposure

Water Leakage after super UV exposure					
Super UV	Initial	3days	6days	9days	12days
Equivalent year	0	5years	10years	15years	20years
<b>3040BK</b>	No leak	No leak	No leak	No leak	No leak



Fig.3 3040BK's appearance after 70days storage at 194F (20 equivalent year)



Fig.4 3040BK's appearance after 12days super UV exposure (20 equivalent year)

### 5. Observation

Heat or UV exposure affects physical features of tape over time. However, 3040BK didn't show water leakage or any visible changes even after 70days storage at 194F or 12days super UV exposure that are equivalent to 20years. Both substrate and adhesive of 3040BK have high dimensional stability and excellent waterproof. It was concluded that 3040BK can be used as a window or deck flashing tape with high weather resistance and excellent waterproof.

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