

# Adeka Ultra Seal KM-3030M

## Hydrostatic head test for expansion joint

Industrial material group  
ASAHI DENKA KOGYO Co., Ltd.

### PURPOSE

This test is to observe how ADEKA ULTRA SEAL can resist under the high water pressure with sliding.

### SAMPLE

ADEKA ULTRA SEAL KM-3030M

Pre-formed rubber strip.

Width=30mm,height=30mm,(Approximately,1.2"X1.2").

Stainless steel wire mesh to control and focus expansion.

Three times expansion by volume.

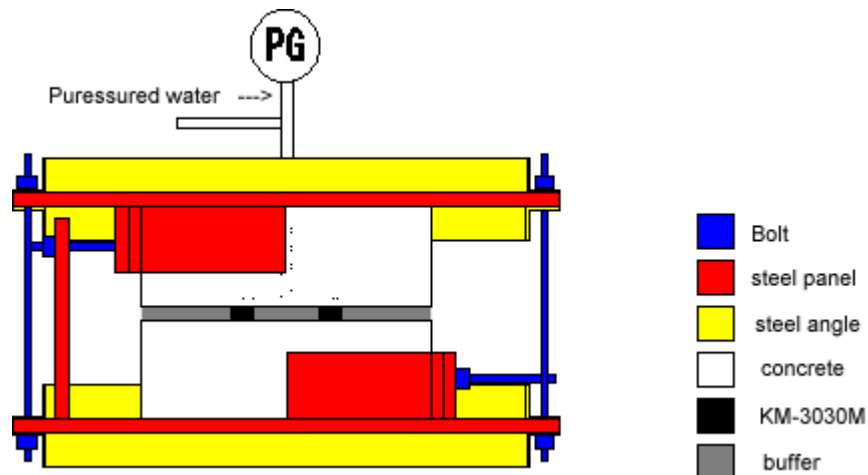
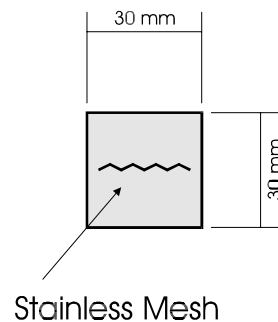


fig.1 ) test sample

1) Prepare two peaces concrete block for this test. (See fig.2)

For second concrete, make a concrete block with buffer and include 100mm of KM-3030M in it. And set a pipe to provide water inside of test sample.

2) Set two concrete blocks with adhesive.

3) Wait a week for adhesive, and then, tighten screw. and soak test sample into water.

4) 10 days after, hydrostatic head test was done in follow situation.

(1)Keep every 3 min, for every 0.1MPa of water pressure.

(2)If no leakage is confirmed, increase additional 0.1MPa again.

(3)Repeat (1)-(2) and observe 0.3MPa hydrostatic head.

5) 31 days after, observe hydrostatic head at 0.3MPa again.

6) Then, start sliding concrete every 5mm, and keep water pressure at 0.3MPa, and observe hydrostatic head.

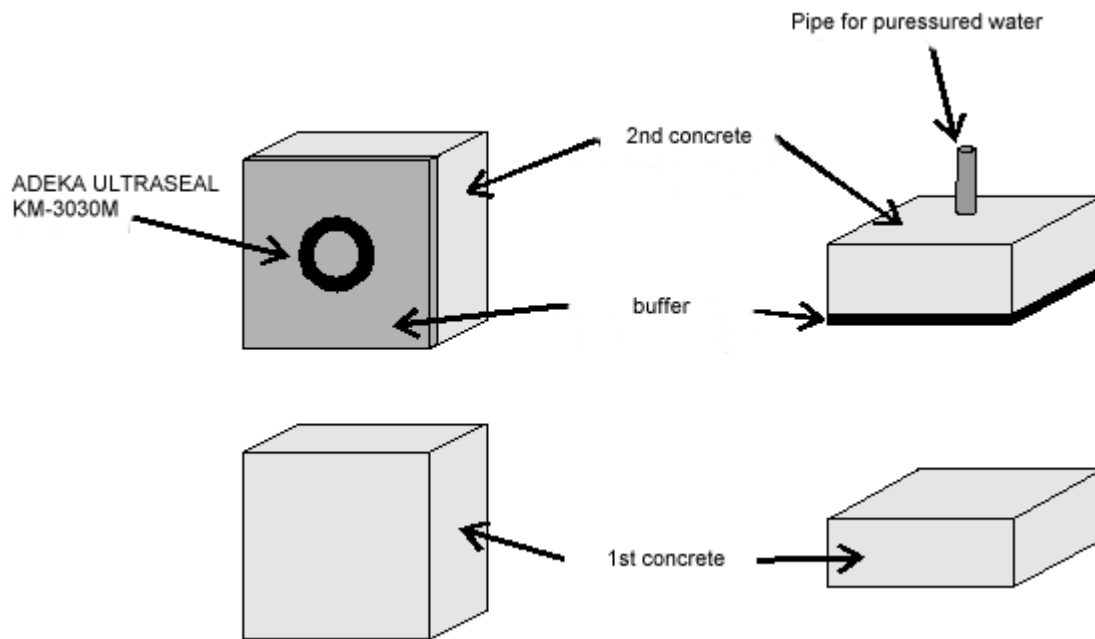


Fig.2 ) concrete blocks for test

## Test result

table-1) test result (hydrostatic head test after 10 days soaking)

width of joint: 20mm

sliding: No

hydrostatic head (MPa)	result
0.1	No leakage
0.2	No leakage
0.3	No leakage

table-2) test result (hydrostatic head test after 31 days soaking)

width of joint: 20mm / sliding: No

hydrostatic head (MPa)	result
0.1	No leakage
0.2	No leakage
0.3	No leakage

table-3) test result

width of joint: 20mm / sliding: 5-30mm

sliding (mm)	hydrostatic head (MPa)	result
5	0.3	No leakage
10	0.3	No leakage
15	0.3	No leakage
20	0.3	No leakage
25	0.3	No leakage
30	0.3	No leakage

In this test result shows ADEKA ULTRA SEAL KM-3030M can keep 0.3MPa of hydrostatic head in a situation there is 30mm gap.