



ISO 9001 Certified  
Company approved  
by Bureau Veritas.



# Certificate

## RiveStop®



### Testing:

**Waterproofing of the Rivestop after Ageing in Chemical Agent (pH=4.0-4.3)  
at a pressure of 20 meters of water column (mWc)**

#### Sample details

Identification	<b>Rivestop OF2012-191 Batch 11015</b>
Description	<b>Rivestop</b>
Code	<b>12-4677-395</b> <small>Receiving the sample</small>

#### Required testing

Testing	<b>Waterproofing after ageing at chemical agent (pH=4.0-4.3)</b>
---------	--

Testing Laboratory :



Lab Report No.

**12-5395-1293**

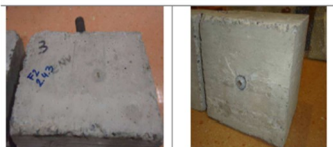
### Result :

## OK, No leaks

### Methodology

Without expanding, samples undergo ageing in acid solution which comprises subjecting test-tubes to 50 cycles mingling moisture and dryness of 24-hour periods, each of which comprise:

The ends of the surface of the test-tubes are soaked for 5 hours at room temperature with a solution that stimulates acid rain, preparing a mixture of 1 part of nitric acid with 2 parts of sulfuric acid in volume until it reaches a **pH between 4.0 and 4.3**. The acidic solution is



poured onto the test-tubes for 10 hours at room temperature and afterwards drained. They left to dry for 2 hours at room temperature. After these cycles of ageing, the test-tubes are installed in the concrete substrates at room temperature. After installation, the test-tubes are stabilized for 24 hours at 23°C and 50% RH

Environmental Effects	pH Value	Examples
ACIDIC	pH = 0	Battery acid
	pH = 1	Sulfuric acid
	pH = 2	Lemon juice, Vinegar
	pH = 3	Orange juice, Soda
	pH = 4	Acid rain (4.2-4.4)
	pH = 5	Acidic lake (4.5)
	pH = 5	Bananas (5.0-5.3)
	pH = 6	Clean rain (5.6)
	pH = 6	Healthy lake (6.5)
NEUTRAL	pH = 7	Milk (6.5-6.8)
	pH = 7	Pure water
	pH = 8	Sea water, Eggs
	pH = 9	Baking soda
	pH = 10	Milk of Magnesia
	pH = 11	Ammonia
	pH = 12	Soapy water
	pH = 13	Bleach
BASIC	pH = 14	Liquid drain cleaner

before testing for leaks. In order to perform this second trial of testing, prior hydraulic Assembly is carried out which allows testing 6 test-tubes simultaneously. The testing device is programmed to perform the testing of sealing pressure of 2bar (0. 20MPa) for 24 hours at a temperature of 10°.



The testing equipment for waterproofing used are the following:  
Climatic Chamber Thermotron with certified calibration 10/34513341 of the 20-9-2010  
Pattern Measure of Pressure: Telegan Pressure Transducer XMLP010BC71V certified 12/34508029 of the 27-3-2012



Certificate Date: 02-14-2017

