INSPECTION PROCEDURE FOR WATERTIGHT AND NON WATERTIGHT COLLARS

MARINE FLEX SYSTEM

VISUAL EXAMINATION – direct after finish installation

FireSeal recommends first and foremost visual examination for all penetrations that are accessible. All steps below are applicable to both white and black silicone.

STEP 1,1

Inspect that the sealant has adhered to the sleeve throughout the penetration and that no voids are visible. Any additional caulking that creates a crown outside of the collar or gooping onto the cable jackets improves the waterproofing properties.

STEP 1,2

Inspect that the sealant has adhered to the cables passing through the penetration by gently moving the cable(s) not exceeding 1-2 mm in any direction. If necessary use an inspection mirror or other visual means.

STEP 1,3

Inspect that the cables are separated between each other and from cables to sleeve with a distance of min 5 mm (0,2”).
(For non-watertight penetrations, silicone tightness is not critical from a fire safety perspective and smaller holes and leaks are acceptable e.g. bundled cables are accepted. However, a distance of 5mm (0,2”) between the bundled cables and sleeve shall be maintained. Sealant is not required between the bundled cables)

STEP 1,4

After sealant has cured, use a non-sharp object or your thumb and press into the sealant to detect if at any point the object/thumb penetrates the sealant which would indicate the thickness of sealant is not achieved. Alternatively, a knife can be used to carefully cut away a small piece of the sealant (i.e.20x20mm or 0,8”) and then verify the min thickness that is described in the PDA. Reseal with Marine Flex Sealant.

INSPECTION PROCEDURE FOR WATERTIGHT COLLARS

MARINE FLEX SYSTEM

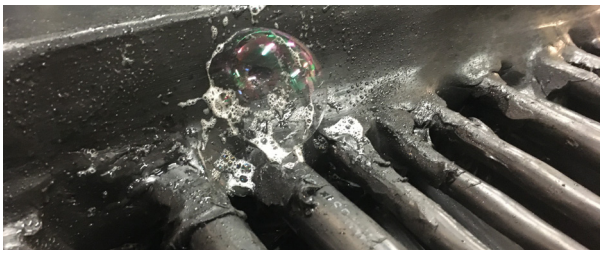
SEAL INTEGRITY TEST METHOD – after sealant has cured

If visual examination is not applicable FireSeal recommends a test to verify tightness by means of air pressure towards one side and detection with soap on the opposite side. All steps below are applicable to both white and black silicone.
Test method in accordance to ABS mvr Part 3, 3.7.1/3.5.4(c). Water as test media is replaced with compressed air which is more applicable as test method for cable transits, in accordance with IACS Z28 – 1.2 (Surveys of Watertight Cable Transits).

STEP 2,1

Use compressed air with a nozzle inside diameter of 12 mm (0.5 in.). Air pressure shall be at least 2 bar (2 kgf/cm2, 30 psi) and be at a perpendicular distance from the seal not exceeding 400 mm (16 in).

STEP 2,2



Inspect opposite sides of the sleeve for signs of leakage by using a leak indicating solution (soap water).

STEP 2,3

Before any repair, grease, oil and soap must be removed from the area to be repaired.

STEP 2,4

Repair any leakage detected using Marine Flex Silicone. After after curing, repete from step 2,1.

Note: It's important to get good adhesion to sleeve edge and cables / pipes. It is acceptable for the Marine Flex Sealant to be applied so that it follows the cables/pipes as they exit the penetration and / or exceeds that is described in the PDA thickness anywhere throughout the layer of sealant.

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