

WALKING AREAS IN FILTRATION PLANT

LOCATION

Water treatment plant that collects water from the sewage system of indicatively 127,000 residents. There are four phases in the whole treatment cycle: pre-treatment and settling, primary treatment that divides industrial and domestic flows, secondary treatment with activated sludge and collection for bacterium reduction as final treatment.

CLIENT

Group for water supply, water treatment and sewage.

LOCATION

VICENZA (ITALY)

USE

PEDESTRIAN FLOORS FOR
TECHNICAL AREAS

PRODUCT

GRATINGS SCH 38X38 C_IFR AND
38X38_IFR



OBJECTIVE

The environment of the water treatment plants that remove urban and industrial contaminants from the domestic and industrial water, continuously get in contact with organic and non-organic substances that corrode the structures in the years and their functionality could be reduced. In the water treatment cycle there are several chemical, physical and organic processes. Sludge coming from these cycles is also contaminated with toxic substances and who in turn must also be treated reducing them to admitted materials that could be disposed in special dumping grounds or reused in agriculture. Materials used in floors, gangways, steps and ladders must perfectly resist to nitrates (in particular organic compounds of carbon and hydrogen structures together with some oxygen, nitrogen, sulfur, phosphorus, silicon bonds) and to non-organic compounds as oxide, carbonate, sulphate and halide groups. One of the main things required was to drastically reduce maintenance cost of structures and to use materials that could resist to this aggressive environment.

SOLUTION

M.M. has offered and installed polyester resin gratings alternating type SCH 38/38C_IFR with covered surface and type SCH 38/38_IFR. As required by AVS, they are certified to last in the years without the downfall of the mechanical resistance according to the UNI EN ISO 9142/04 norm for the exposure to heat, cold and humidity cycles and ASTM G 154 norm for the U.V. rays exposure. They are easy to remove and the access to the spaces is safe and simple. No lifting devices are required. The installation of both open and covered surface gratings allows an immediate visibility of the bassin and odor prevention. The quartz sand antiskid surface treatment reaches the R13 V4 level of the DIN 51130 norm which certifies the non slippery surface even if wet. Due to the dielectric property of M.M. gratings, they are considered excellent insulators according to the EN 61340-2-3 and IEC 61340-4-5 norms of the electric field.