

4.9 CONTAMINATE TESTING.

To test the durability of the artificial turf that may come in contact with certain volatile airport materials, Air FieldTurf, through Bodycote Materials Testing, conducted chemical resistance tests on the artificial turf material and yarn material. The test on the artificial turf material was done in accordance with ASTM D4632-91, “Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.” The test on the yarn material was done in accordance with CAN/CGSB-4.2 No. 9.4-M91, “Textile Test Methods—Breaking Strength of Yarns—Single Strand Method.” The artificial turf was soaked in the following chemicals for 2 weeks and then to check for durability:

- Propylene Glycol
- Jet A
- Ice-O-Later
- No-Gel
- Potassium Acetate
- Glycol Type 1 – Orange
- Aviation Hydraulic Fluid
- Urea
- 100 LL Fuel
- Diesel
- Glycol Type 4 – Green

The grab tensile test was conducted on the Air FieldTurf material and the green yarn material after 2 weeks of exposure to various fluids. In comparison to the baseline tensile test, the material was not affected except for the hydraulic fluid. When exposed to the hydraulic fluid for 14 days, the backing material deteriorated.