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For the attention of: Phil Barsby

Technical Services Report

Subject: **Visual assessment of rigid 2mm thick PVC after exposure to 21 chemicals**

Firm: Intastop Ltd
For the attention of: Phil Barsby
Your ref:
Our ref: CHM0157470/0743/MEH
Date: 23 November 2007

Conditions of Issue:

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Technical Services Report

ASSESSMENT OF PVC MATERIAL AFTER EXPOSURE TO 21 CHEMICALS

SAMPLES SUBMITTED

Samples of 5cm squared test pieces of 2mm thick rigid pvc material were received by SATRA on 26 October 2007 for assessment.

TESTS REQUIRED

BS 2782 Part 8 method 830A:1999 (modified) Plastics – Methods of test for the determination of the effects of immersion in liquid chemicals

METHOD DEVIATIONS

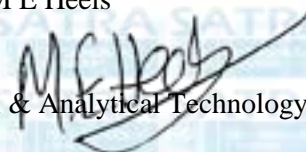
The testing was carried out against an agreed battery of 21 reagents and involved immersion in each reagent for seven days at 23°C.

A visual assessment was assessed to a grey scale specified in EN 20105-A03:1994. The scale consists of five pairs of non glossy grey or white colour chips which illustrate the perceived colour differences corresponding to ratings 5, 4, 3, 2 and 1. The first member is white in colour illustrating a rating of 5. Subsequent members are increasingly darker in colour, illustrating increasing colour differences.

RESULTS

Testing completed 13 November 2007

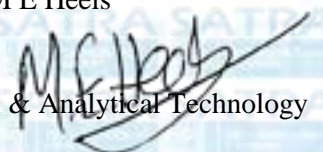
Chemical	Staining Value / Colour change
Water	5
10% Bromic acid	5
10% Hydrochloric acid	5
10% Ammonia	4/5
Household bleach	5
3% Hydrogen peroxide	5
Milk	5
Liquid soap	5
Sodium chloride 10%	5
Vinegar	4
20% Acetic acid	5
Ethanol	5
Urea solution (urine)	5
Black tea	3/4
Black coffee	4
Mineral oil	5
Disinfectant (phenol)	5
Cola drink	4/5
Pure orange juice	5
White spirit	5
Liquid floor detergent	5



Technical Services Report

CONCLUSION

The samples of 2 mm thick 5cm squared test pieces of rigid PVC material submitted to SATRA on 26 October 2007 were assessed according to BS 2782 Part 8 method 830A:1999 with the modifications outlined above. The samples were assessed according to a grey scale as recorded in the above table.

A handwritten signature in black ink, appearing to read "M E Heels", written over a faint background of the SATRA logo.