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Tokyo  
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100 0005

For the attention of: Masayuki Gotoh

## Technical Report

Subject: Gloves referenced Fancylove III for permeation  
testing in accordance with EN374-3:2003 against 96%  
Sulphuric acid and 37% hydrochloric acid

Your ref:

Our ref: CHM0190763/MP

Date: 10<sup>th</sup> January 2011

### Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

Tests marked † fall outside the UKAS Accreditation Schedule for SATRA. All interpretations of results of such tests and the comments based upon them are outside the scope of UKAS accreditation and are based on current SATRA knowledge.

**A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the client as a result of information supplied in the report.**

The uncertainty of the results in this report is based on a standard uncertainty multiplied by a coverage factor  $k=2$ , which provides for a confidence level of approximately 95%.

## WORK REQUESTED

Samples of gloves referenced Fancylove III were received on the 4<sup>th</sup> January 2011 for testing in accordance with EN 374: 2003 part 3 and with the performance requirements of EN 374 part 1: 2003

## CONCLUSION

When tested in accordance with EN 374 part 3: 2003 the samples of gloves referenced FancyloveIII achieved the following performance levels. Testing completed on the 7<sup>th</sup> January 2011. The full results are given in the tables below.

Chemical	Performance level
96% Sulphuric acid	1
37% Hydrochloric acid	6

## TESTING REQUIRED:

- BS EN 374: 2003 Protective gloves against chemicals and micro-organisms Part 1: Terminology and performance requirements.
- BS EN 374: 2003 Protective gloves against chemicals and micro-organisms Part 3: Determination of resistance to permeation by chemicals.

## RESULTS AND REQUIREMENTS

The performance levels are as given in table 1 of EN 374 part 1: 2003 and are based on the lowest individual result achieved per chemical.

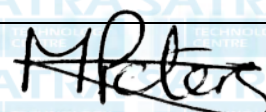
EN 374-1: 2003 Table 1. Permeation performance levels

Permeation performance Level	Measured breakthrough Time (minutes)
1	>10 minutes
2	>30 minutes
3	>60 minutes
4	>120 minutes
5	>240 minutes
6	>480 minutes



Test/Property	Specimen	Results		Performance
EN 374-3:2003 Chemical Permeation	Fancylove III	Chemical: 96% Sulphuric acid Detection system: Conductivity Collection medium: De ionised water Loop system: Closed Test temperature: 23°C		Level 1
		Sample thickness (mm)	Breakthrough time (mins)	
	1	0.25	29	
	2	0.24	27	
	3	0.30	33	
	Mean	0.26	30	
	Lowest result	-	27	
Appearance of sample after testing	No change			

Test/Property	Specimen	Results		Performance
EN 374-3:2003 Chemical Permeation	Fancylove III	Chemical: 37% Hydrochloric acid Detection system: Conductivity Collection medium: De ionised water Loop system: Closed Test temperature: 23°C		Level 6
		Sample thickness (mm)	Breakthrough time (mins)	
	1	0.26	>480	
	2	0.23	>480	
	3	0.28	>480	
	Mean	0.26	>480	
	Lowest result	-	>480	
Appearance of sample after testing	No change			



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Prices are based on current material and production costs, exchange rates, duty and freight and are subject to change without notice.
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Unless otherwise agreed in advance, test samples will be disposed of 6 weeks after the date of the final report. If required, samples can be returned at the Customer's expense.
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  - ii. Where SATRA has given consent to disclosure, the Customer shall draw the attention of the third party to these terms of business and the basis on which SATRA undertakes test, reporting and advising. The Customer shall indemnify SATRA for any failure to do so.
  - iii. The above items are submitted to the Customer as confidential documents. Confidentiality shall continue to apply after completion of the business, but shall cease to apply to information or knowledge which may come into the public domain.
13. **CONSTRUCTION AND ARBITRATION**  
The laws of England shall govern all contracts and the parties submit to exclusive jurisdiction of the courts of England, unless otherwise agreed.

Issue Date: 1st October 2009

Harada Corporation Tokyo Branch  
CHM0190763/MP

10<sup>th</sup> January 2011

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Signed: M. Peters  
Technologist

Chemical & Analytical Technology

