Ultraviolet Protection Factor Report

Analyzed for: YouVee Shield, LLC

Sample Information

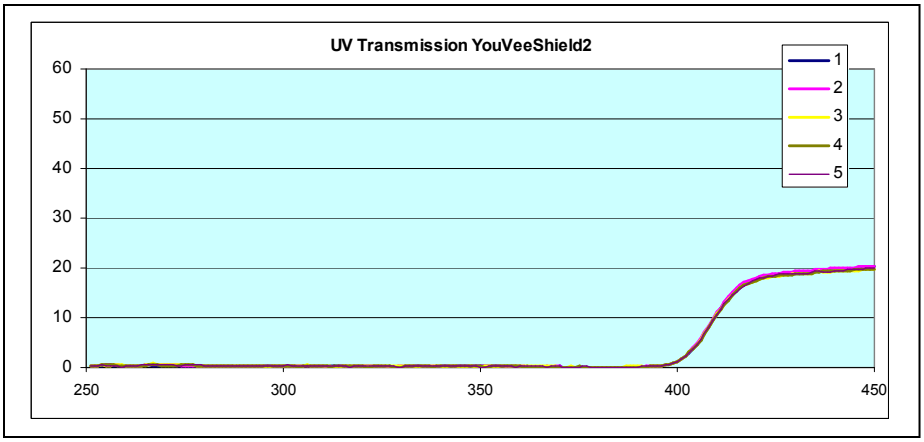
Sample Type:	Polymer	Sample Colour:	*White*
Description: the material is a thin (approx. 0.002" thick) lightweight polymer			

Protection Factor Results

Number of Specimens Analyzed: 1

Mean UVB Transmittance:	***0.25%***
Mean UVA Transmittance:	***0.20%***
Mean UPF:	***427***
Standard Deviation:	***27***
Standard Error of the Mean:	***13.5***
Rated UPF:	**50+**
Protection Category:	**Excellent**

UV Transmittance Characteristics



Statistical Uncertainties

Total Measurement Uncertainty:

Coverage Factor (99% confidence): k = 3

The maximum instrumental contribution to the uncertainty in the transmittance values T(%) used to calculate the results is 0.0010 at the 99% confidence level.

Review of Results

This material is effective as protection against ultraviolet radiation (UVR) as it has an ultraviolet protection factor (UPF) greater than 50. A material with a rating of UPF 15 reduces the amount of UVR by a factor of more than 55.
A UPF rating of 50+ qualifies this material for the UPF Excellent protection category. The assigned UPF rating of 50+ may be quoted for advertising purposes.
The UPF rating is for the material only and does not address the design of the product. A garment can only protect the areas of skin that are covered by the material.

Statistical Uncertainties

Total Measurement Uncertainty: This is a measure of the total uncertainty in the analysis and is equivalent to the Standard Error of the Mean.

Coverage factor (99% confidence): Known as **t-variate** in AS/NZS4399. This is a statistical value used in calculation of the Standard Error of the Mean, calculated at the 99% confidence level.

Review of Results
In this section the effectiveness of the material for sun protection is described. There may also be observations about the test samples, test results or products tested.

Material Sample
For positive identification, a sample of the material tested, or an image of the product, is attached to the report, if applicable.

Signatures
Every page of the report is signed by the technician who performed the analysis.

Additional Information
UVA: Ultraviolet radiation in the region 315 nanometres to 400 nanometres.
UVB: Ultraviolet radiation in the region 290 nanometres to 315 nanometres.

How UPF ratings are calculated:
1. The transmission of ultraviolet through the material is determined using a calibrated ultraviolet transmission analyser. Measurements are made on at least four specimens.
2. The UPF result for each measurement is calculated.
3. The separate UPF values are averaged to determine the mean UPF.
4. The standard deviation is calculated.
5. The standard error is calculated.
6. The standard error is subtracted from the mean UPF.
7. This value is rounded down to the nearest multiple of five to determine the reported UPF rating. The UPF rating also determines the Protection Category assigned to the material.

UPF rating - rounding down: The calculated UPF value (or the lowest measured value) is rounded down to the nearest multiple of five to give the reported UPF rating. One effect of this is that materials actually need to achieve a calculated UPF value of 55 or higher in order to be classified as UPF 50+.

Transmittance vs. Transmission: AS/NZS4399 stipulates that UVA and UVB radiation passing through the test sample is reported as transmittance. The transmittance scale is from 0 to 1. A more familiar unit is **transmission** which has a scale from 0% to 100%. To convert from transmittance to transmission, multiply the transmittance value by 100.