American Ultraviolet Company

January 9, 2013

Window Technologies Inc
Dba WinTech
Attn: Michael Castleberry
201 Industrial Dr.
Monett, MO 65708

RE: UVA, UVC, and UVV Testing.

Dear Mr. Castleberry:

Your samples were tested on January, 9th 2013, by using an EIT UV Power Puck II, positioning it behind WTI's glass samples to get measurements, and comparing them to the measurements without glass in between the meter and the lamps. Below are the testing results for blocked UV rays by glass make up and percentages.

Glass Mark	Size Tested	Glass Make up	*UVA Percent Blocked	**UVB Percent Blocked	***UVC Percent Blocked	****UVV Percent Blocked
UV-001	8" x 12"	Single 1/4" Clear Tempered	4.00%	100.00%	100.00%	0.00%
UV-002	8" x 12"	Single 1/4" Wire Glass	16.00%	100.00%	100.00%	10.00%
UV-003	8" x 8"	IG 1/4" Wire Glass x Air x 1/4 Clear Tempered	54.00%	100.00%	100.00%	50.00%
UV-004	8" x 8"	IG 1/4" Clear Tempered x Air x 1/4 Clear Tempered	58.00%	100.00%	100.00%	57.00%

*UVA 365NM tested - Longest Wave UV lamps

**UVB is 310NM - Long Wave UV lamps

***UVC is 254NM tested - Germicidal Lamps

****UVV is 405 nm tested - LED and Tube light

Summary:

1. UVA ranges between 320-400 nm and has a longer wavelength than UVB, which ranges between 290-320 nm.
2. UVA has more penetrating power and penetrates glass while UVB does not penetrate glass.
3. UVA radiation penetrates the skin up to the dermis layer while UVB only reaches the epidermis.
4. Although all UV radiation is harmful, UVB poses a higher risk factor than UVA because it causes direct DNA damage. Unlike UVA, UVB rays cannot penetrate glass and a big percentage of UVB light is reflected back from reflecting surfaces like glass.

If you have any questions, please do not hesitate to give us a call.

Sincerely,

Michael Barton
Mechanical Engineer
American Ultraviolet Company
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