



## **UV Cure - Acetone Rub Test v1.1**

Testing Method	
Scope	This test is used to qualitatively determine the condition of a cured UV coating film by testing the chemical resistance of the cured film by exposure to Acetone under controlled testing conditions. This testing type/method is also referenced under ASTM 5402-15 'Standard Practice for Assessing the Solvent Resistance of Organic Coatings Using Solvent Rubs'.
Test Measurement Instruments	<ul> <li>Acetone</li> <li>Cotton Swabs(Q-Tips)</li> <li>PPE as noted in the Acetone SDS; example: solvent-resist gloves, respirator, eye protection</li> </ul>
Test Limitations	<ul> <li>Acetone testing is qualitative yet subjective as the testing process and observed results can vary by individual</li> <li>This testing method is best used for comparative purposes</li> <li>UV coating film thickness will influence the final results in conjunction with the degree of UV coating film cure. A higher volume/thicker film of UV coating can exhibit greater Acetone resistance compared to a lower volume/thinner film</li> </ul>
Test Procedure	<ol> <li>Obtain a clean and dry UV coating sample to be tested</li> <li>Determine the number of double-rubs(one back-forth motion) to conduct during the initial testing; consult CAC with the coating product number to be tested for this recommendation</li> <li>Wearing PPE, dip the end of the cotton swab into the Acetone solution and immediately rub the UV coating surface using a firm stroke in a back-forth(one double-rub) motion for a length of ~2" for the pre-determined number of double-rubs</li> <li>Examine the UV coating film for the effects of the testing. If the coating film has been removed down to the substrate, re-conduct the test in a new area of the UV coating sample using a lower number of double-rubs. If the coating film has not been removed down to the substrate, re-conduct the test in a new area of the UV coating sample using a higher number of double-rubs.</li> <li>Repeat the testing process until the number of double-rubs just removes the UV coating film down to the substrate surface; this is the Acetone resistance of the UV coated sample</li> </ol>