

Assess and monitor load-bearing acrylic panels like never before.

Like any capital asset, transparent acrylic structures such as windows, cylinders & tunnels require regular inspection and occasional maintenance. Ad hoc visual check-ups matter, but staff observations can be subjective, unscientific and inherently superficial.

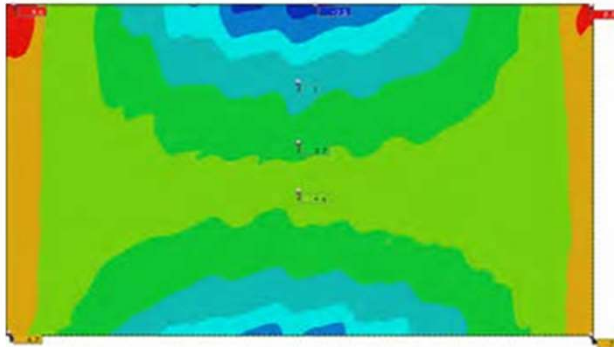
AAT's Acrylic Inspection & Reporting Services provides penetrating analysis and quantitative data-sets enabling year-to-year comparisons, more informed maintenance, improved budget-planning and insightful risk management.

- ✓ 3D Laser Scanning
- ✓ Finite Element Analysis (FEA)
- ✓ Chemical Bond Polarized Light Inspection
- ✓ Chemical Bond Optical Inspection
- ✓ Dry & Wet Side Silicone Seal Inspections

Want to learn more? AAT's acrylic specialists are available to meet you to explain what is involved and outline the information that we need to provide you with a customised and costed proposal.

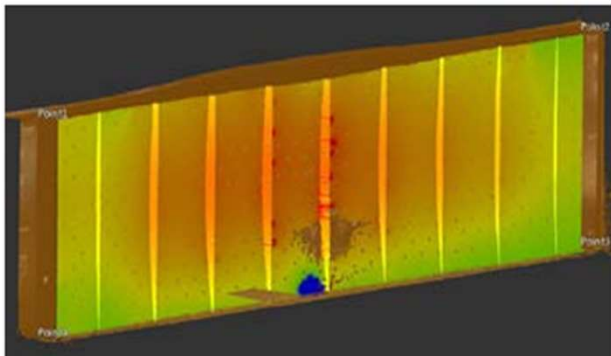
FINITE ELEMENT ANALYSIS

- ✓ Double check original design and engineering for expected stress and deflection
- ✓ Create a benchmark for comparison against actual current deflection
- ✓ Review stress levels on the acrylic and bonding lines



3D LASER SCANS

- ✓ Accurately record actual current deflection
- ✓ Compare actual deflection to FEA analysis (initially)
- ✓ Identify potential substructure deflections and cross check with revised FEA analysis to see if the substructure is increasing stress
- ✓ review the stability of the acrylic by comparing year-to-year results (or other appropriate cadence)



OPTICAL AND POLARIZED LIGHT INSPECTION OF CHEMICAL BOND LINES

- ✓ A diver shines polarized light through the bond from the wet side, enabling bond inspection from the dry side
- ✓ Identify and map stress peaks, inclusions, bubbles and alien material, and assess structural implications
- ✓ Undertake dry side optical inspection of bonding lines and acrylic surface
- ✓ Identify and map crazing/cracks and assess structural impact
- ✓ Ideal for maintenance and repair planning

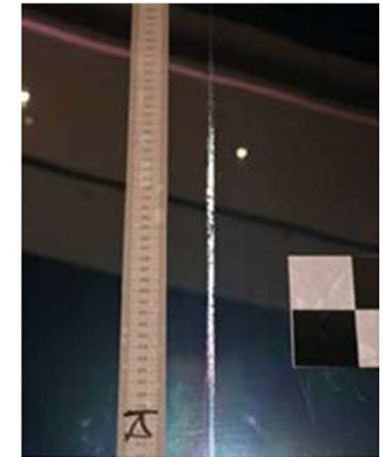


SILICONE SEAL INSPECTION

- ✓ Pinpoint exact location of potential wear and damage along a measuring tape - identify repair needs
- ✓ Video-recorded



2100	
2200	2260-2360 crazing
2300	
2400	
2500	2520-2600 crazing
2600	
2700	
2800	
2900	
3000	
3100	3190-3360 crazing
3200	
3300	
3400	3420-3560 crazing
3500	



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