



Waterbased Coating Shelf-Life v1.1

Expected Shelf-life

Waterbased coating products manufactured by Coatings and Adhesives Corporation CAN have a shelf life that is >3 years from the Date-of-Manufacture(DOM) IF:

- Coating product has been protected from freezing
- Coating product has been protected from excessive heat
- Coating product has not been contaminated by an untreated water source
- Coating product has not been contaminated by another coating product
- Coating product has not been contaminated by other chemical additives
- Coating product container lid has been secured during storage protecting from contamination of dirt/debris
- Coating product is not a specialized product; consult product Technical Data Sheet for shelf-life considerations

Physical Changes

Conditional changes that are typical during long-term storage(>3 months from DOM) of waterbased coatings:

- Increase in viscosity due to evaporation/water-loss
- Mild phasing; thickening/solidification due to lack of agitation
- Discoloration; turning a dark/tan color

Re-conditioning Prior To Use

When using a coating product that has been held in long-term storage or has only intermittent use, it is important to mix the coating product thoroughly and measure for viscosity compliance prior to use. Reference the CAC Waterbased Viscosity Measurement document for detailed instructions on viscosity measurement and dilution.

Mixing

Waterbased coatings can exhibit reversible thixotropic properties and thicken/gel when left un-stirred/un-agitated for extended periods of time. When examining a coating product for viscosity, it is important to mix the coating product thoroughly to restore it to a fluid state prior to performing a viscosity test. Hand-mixing with a paddle is generally sufficient. A drill with mixing-blade attachment or a dedicated drum-mixer can also be used and would be recommended for coating product >1 year from DOM. Use caution when opening the container to prevent contamination of any dirt or foreign matter that may have accumulated on the lid. Any grit or dried material that is present in the coating can be filtered out with a 100 micron bag filter.

Viscosity

After mixing thoroughly, measure the coating temperature and record. Measure the coating viscosity with the appropriate Zahn cup and compare both measurement results to the appropriate CAC Temperature/Viscosity Index Chart for reference. Ideally, the coating material should be acclimated to ambient pressroom conditions prior to any viscosity measurement and dilution.

Dilution

If necessary, adjust the viscosity by adding water only. For small viscosity adjustments, add only 1% water at a time. For large viscosity adjustments, the Zahn cup reading will fall ~5 seconds for every 2-3% dilution. Mix thoroughly after adding water and re-measure viscosity to confirm results. Repeat this process until the correct viscosity is achieved.