Waterbased Coating – Coating Shelf-Life

Expected Shelf-Life	- Waterbased coating products manufactured by INXCAC can have a shelf life that is (3) years from the listed Date-of-Manufacture (DOM) IF: • Coating products have been protected from freezing • Coating products have been protected from excessive heat • Coating products have not been contaminated by an untreated water source • Coating product has not been contaminated by another coating product • Coating products have not been contaminated by other chemical additives • Coating product containers have been sealed with the lid secured during storage protecting from contamination of dirt/debris • Coating product is not a specialized product – consult product Technical Data Sheet (TDS) for shelf-life considerations • Coating product label does not specify a different/shorter shelf-life – this is documented on the product label below the DOM and/or on the product TDS
Physical Changes	- Conditional changes that are typical during long-term storage of waterbased coatings: • Increase in viscosity due to evaporation/water-loss • Mild phasing – thickening/gelling due to stagnation • Discoloration – mass-tone turning a darker/tan color

Waterbased Coating – Re-Conditioning Prior to Use

Mixing	- When using a coating product that has been held in long-term storage or has had only intermittent use, it is important to mix the coating product thoroughly and measure the viscosity for compliance prior to use – reference the INXCAC Waterbased Viscosity Measurement document for detailed instructions on viscosity measurement and dilution - Waterbased coatings can exhibit reversible thixotropic properties (phasing) resulting in a high viscosity – the coating can thicken/gel when left stagnate for an extended period. Application of mixing/shear will restore the coating to a more fluid condition and cause the viscosity to decrease - Waterbased coatings can stratify when left stagnate for an extended period causing heavier ingredients to fall to the bottom of the container and lighter ingredients to float to the surface – mixing the coating prior to use will ensure the coating is in a homogenous state in the container prior to use - When examining a coating product for viscosity, it is important to mix the coating product thoroughly prior to performing a viscosity test – a drill with mixing-blade attachment or a dedicated drum-mixer is recommended - Use caution when opening the container to prevent contamination of any dirt or foreign matter that may have accumulated on the lid during long-term storage - 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 for reference - Measure the coating viscosity with the appropriate Zahn cup and compare the results to the appropriate INXCAC Temperature/Viscosity Index Chart for compliance - The coating material should be acclimated to ambient pressroom conditions prior to any viscosity measurement and dilution to ensure a suitable operating temperature
Dilution	- If necessary, adjust the viscosity by adding water only - For small viscosity adjustments, add only 1% water at a time and re-test for viscosity compliance - For large viscosity adjustments, the Zahn cup reading will drop ~5 seconds for every 2-3% water addition