The Effects of Cooler Temperatures on Acrylic Paint

Cooler temperatures can thicken paint, slow drying, and even cause freezing in water-based paints, and potential loss of adhesion and affect coverage.

Effects of Low Temperatures:

Thickening & Difficult Application:
Cold temperatures increase viscosity, making it harder to apply evenly.

Slowed Dry & Curing:
The chemical reactions involved in paint drying and curing are significantly slowed down in cooler conditions.

Freezing & Damage:
Water-based paints can freeze if temperature drops below 0°C causing irreversible damage to the coating.

Poor Film Formation:
In cold weather, the particles in water-based paint may not fuse properly, leading to a compromised film and reduced durability and poor coverage.

In Winter or colder months ensure the surface temperature is above 10°C for water-based paints.

Here are some ways this can be achieved:

- Using a laser or Digital Infrared Thermometer check the surface temperature.
- Heat up rooms with a heater prior and after painting.
- Use a dehumidifier prior and after painting.
- Work with the sun.
- Ensure good airflow but make it warm.

Ensure that the paint is at a workable temperature also.

Here are some ways this can be achieved:

- Place the paint in a bath of hot water for 15-20 minutes.
- Sit the paint on an electric blanket for 15-20 minutes.
- Stand the paint in the sun off the ground.
- Place the paint in a hot water cupboard between fill ups.
- Have a dedicated room or area warmed up where the paint being used for the day is stored.