

Resene Winter Buster

Painting in winter can be a challenge with the cold weather playing havoc with application and performance.

Waterborne paints are typically based on tiny, thermoplastic particles that deform and stick to one another during the stresses of drying and film formation. Particles deliberately engineered to be soft, form films easily even at quite low temperatures. The softness, however, extends to the finished film, making it prone to damage from dirt retention. Hard particles can be made, but they require heat, or large amounts of plasticising solvents, in order to form films.

A compromise was required and the industry accepted particles that needed some plasticising solvent and some heat (10°C or higher) to form useful films.

Since that time, novel technologies have arisen that overcome the hardness/film-formation dilemma. One of the methods is to build the sub-micron plastic particles in two separate phases – a soft phase that will coalesce at very low temperatures, and a hard, tough phase that will contribute good film properties – a paint version of peanut toffee. Because coalescing solvents are not necessary, an added bonus of the technology is that it is very green with low VOC. Consequently, waterborne paints can be formulated without humectants (typically added to slow the dry in hot weather), which makes them dry faster in winter.

The Resene Technical team developed the first wintergrade product, Resene Wintergrade Lumbersider (see Data Sheet D34a) in 1999. This product has since been joined by Resene Wintergrade Hi-Glo (see Data Sheet D31a), Resene Wintergrade Quick Dry (see Data Sheet D45a) and this year, Resene Wintergrade Sonyx 101 (see Data Sheet D30a) and Resene Wintergrade X-200 (see Data Sheet D62a). These products will all dry in temperatures down to a cool 2°C.

Wintergrade products are the same price as the standard products, so painters can select whichever product fits in best with the local weather conditions without affecting the contract price.

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