

Clear Hard Coating

A CHEMICAL AND ABRASION RESISTANT COATING, SUITABLE FOR BOTH INDOOR AND OUTDOOR USE

DESCRIPTION

Clear Hard Coating is a UV cured coat that provides excellent protection against abrasion and chemicals to many different plastic substrates. It is based on a urethane acrylate monomer and provides excellent chemical resistance as well as protection against yellowing from the sun's UV rays.

BENEFITS

- Abrasion Resistance - Scuffs, chips and scratches are vastly reduced in both quantity and severity
- Optical Clarity - Sprayed on and UV cured; no visible flow lines, leaving a clear and transparent finish
- Chemical Resistance - Protection against strong chemicals
- Enhancement - A high gloss finish enhances coloured plastics and prints
- Weatherable - Providing protection against yellowing from the sun's UV rays
- Durability - Enhance the life of any plastic substrate

COATING ADHESION

using test method ASTM D3363 DN53 15

MATERIAL	ADHESION ON APPLICATION	ADHESION AFTER 72H WATER SOAK
Polycarbonate	100%	100%
PET	100%	100%
PVC	100%	100%

COATING HARDNESS

using test method ASTM D3363 and ASTM D1003

PENCIL HARDNESS using ASTM D3363

Polycarbonate - 5H

TABER ABRASION

Polycarbonate <3%

Test protocols of ASTM D1003 - 500 cycles & 500 gram weight using CS-10F wheels.
After 500 cycles, Clear Hard Coating gives a delta haze value of <3%

COATING ADHESION

using ISO test method 2812

This test was completed at 15 minute intervals for 8 hours and then left for a total of 24 hours.

CHEMICAL	RESULT	CHEMICAL	RESULT
Ketones	Passed	Aliphatics	Passed
Alcohol	Passed	Alkalis	Passed
Esters	Passed	Acid	Passed
Glycol ethers	Passed	Diesel	Passed
Aromatics	Passed	Petrol	Passed

LIGHT TRANSMITTANCE - CLEAR ONLY

This is dependant on the substrate to which it is applied but the coating itself typically reduces the light transmission by less than 1%.

O2 AND WATER VAPOUR TRANSFER

to ASTM D6701 in triplicate

Average water vapour transfer of a coated piece of Polycarbonate was reduced by 0.5g/m² or 28%, against an uncoated piece of the same substrate. Actual WVTR at time of testing for coating only 1.6g/m² day.

FIRE TESTED

to CS.25.853 (A) app.f part 1 (a) (i) (v)