MCU-COATINGS COLOUR RETENTION

Our moisture cured urethanes have outstanding gloss and colour retention compared to epoxies, alkyds, polyurethanes and most polyureas. We have many case studies that are testament to that and can also back up this claim with laboratory test data and independent comparative testing.

There are several reasons why our coatings have such good gloss and colour retention:

- We use a stable base resin that fully cures as it reacts with moisture. This means that it does not react with UV and other contaminants.
- We use fine micaceous MIO and zinc additives that overlap and create a shield that deflects heat and UV rays that would otherwise start degrading the resin backbone.
- The high quality of the resin, additives and pigments that are used to manufacture our products.

To support these claims, we have data from:

- our internal evaluations;
- UV laboratory tests; and
- comparative testing versus white acrylic urethanes in:
  - accelerated laboratory conditions; and
  - in the field where we compared data after 36 months

All of these tests and evaluations need to be put into perspective because colour is subjective and everyone sees colour differently. Even comparing spectrophotometer measurements is difficult unless you are doing comparative tests because the tests are invariably set up differently and the laboratory tests never replicate outdoor conditions.

As we are trying to measure and understand the rate at which colours' change over time the most basic metric that tells us how well coatings will retain their colour is to measure the loss of surface gloss. That said, we know that darker colours age faster than lighter colours and that reds and blues age faster than yellows and whites. We also know some coatings last a lot longer than others because of the way they age, and whether they include UV additives so there is no single test that is going to give us a conclusive answer.

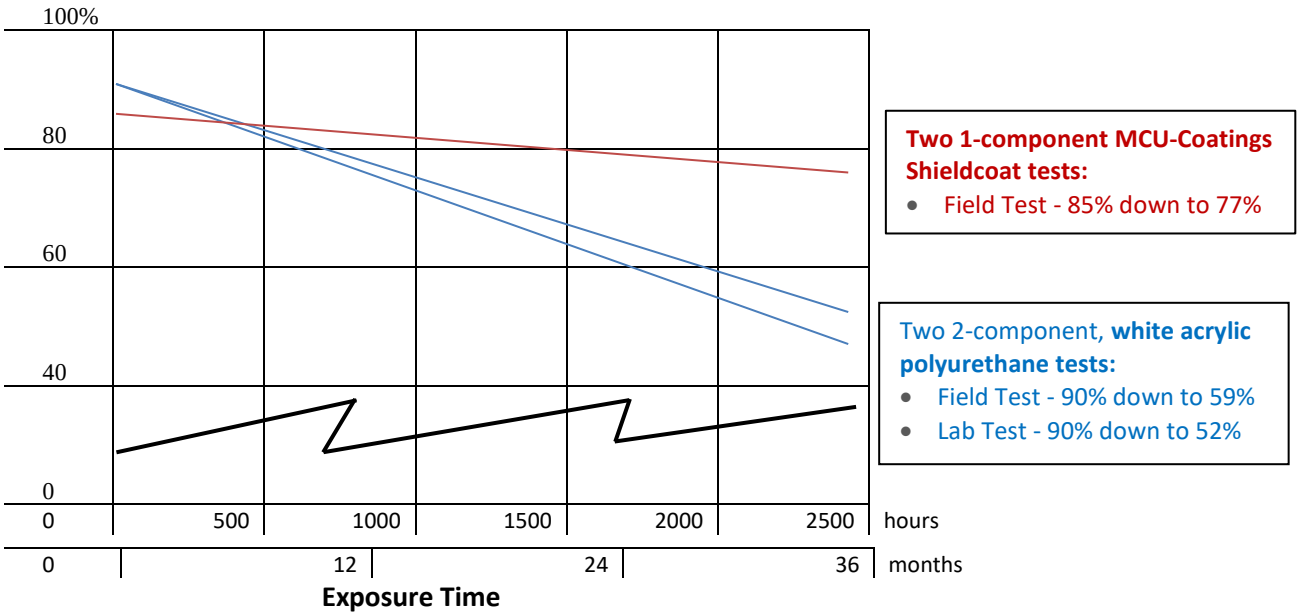
Breaking all this down all we can really do is point to comparative tests, using whiter shades and to focus on the rate at which different coatings lose their surface gloss.

INDEPENDENT QUV TESTING (@ 20°C – Gloss)

In this test we compared our white MCU-Shieldcoat with a 2-pack, white polyurethane in:

- an accelerated laboratory test over 2500 hours; and
- in a field test over 36 months.

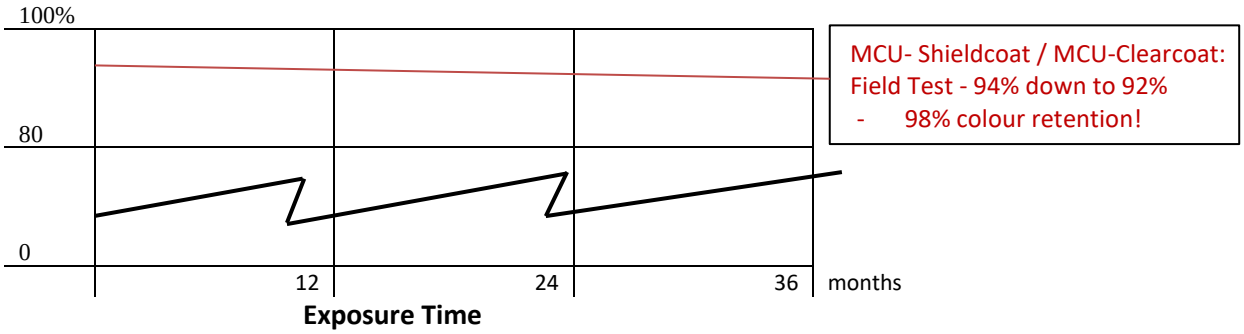
The contrast between the 2 products was quite stark as the MCU-Shieldcoat lost 10% of its gloss compared to the polyurethane which lost 40% of its gloss.



We can also reference several of our case studies, such as the Astoria Megler bridge in Oregon U.S.A. which was painted green. Our moisture cured coating was applied in a test area 34 years ago and following an inspection that was completed in 2020 the assessor said he would revisit the coating after the 40 year anniversary. Interestingly, they made no reference to any significant loss of colour, which presumably would have required another coating. Neither were there any signs of chalking on the surface.

INTERNAL COMPARATIVE TESTS

In a non-comparative 36 months evaluation we conducted in Florida on MCU-Shieldcoat overcoated with MCU-Clearcoat. This result was outstanding.



We appreciate that our coatings (other than MCU-Clearcoat) are not high gloss when compared to some epoxy and polyurethanes (we make low gloss/low sheen coatings), and that our MIO filled products are not available in lighter shades. The MCU-Coatings product range is however available in over 3500 RAL colours, and because of the way they are made, they retain their gloss and colour really well as they are designed to withstand the effects of weathering and UV ageing.

FIELD TESTING – MCU-COATINGS SHIELDCOAT – WEATHERING EVALUATION

MONTHS	GLOSS 60%		CHALKING	DIRT RETENTION	CRACKING
	Washed	Unwashed			
0	94%	94%		10	10
3	94%	94%	10	10	10
6	94%	94%	10	10	10
9	94%	94%	10	10	10
12	92%	92%	10	10	10
15	92%	92%	10	10	10
18	92%	92%	10	10	10
21	92%	92%	10	10	10
24	92%	92%	10	10	10
27	92%	92%	10	10	10
30	92%	92%	10	10	10
33	92%	92%	10	10	10
36	92%	92%	10	10	10

***Visual performance assessment**: 10 = excellent, 1 = poor*

Conclusion: While not as high gloss as some 2-component coatings there is negligible change after 3 years and they show no evidence of chalking, dirt retention or cracking, which is why we are not aware of any international chalking or colour fading claims since the inception of MCU-Coatings.

Just one more reason to join the MCU revolution