

Measurements on WHT M2 in 2017:

				Tempr. °C	wavelength of band (nm)							"Dust Indices"						
					365	404	464	522	624	760	970	365	404	464	522	624	760	970
1005	01/03/2017 10:31	7	WHTM2 all	16.5	84.1	84.5	85.6	86.8	87.2	84.5	91.7	11.0	9.3	8.5	4.9	4.8	3.3	2.6
1006	01/03/2017 10:32	7	WHTM2 all	16.7	84.3	84.5	85.6	87.1	87.1	84.7	91.8	10.6	9.5	10.1	4.7	5.7	3.3	2.6
1007	01/03/2017 10:33	7	WHTM2 all	16.8	83.4	84.1	85.2	87.3	86.6	84.8	91.6	13.4	11.3	11.0	4.6	6.9	3.3	2.9
averages					83.9	84.4	85.5	87.1	87.0	84.7	91.7	11.7	10.0	9.9	4.7	5.8	3.3	2.7
change since 2016/05					-1.4	-1.2	-1.4	-0.2	-0.7	-0.5	-0.1	1.9	0.8	2.4	-0.4	1.5	0.3	0.3
relative to %R of fresh aluminium					-9.1	-7.0	-5.4	-3.9	-3.0	-2.5	-1.6	9.4	8.0	7.9	3.3	4.4	2.2	1.7
ratio to shortfall of washed INT M1					2.8	2.7	2.8	2.5	2.5	2.7	2.6	3.5	3.3	4.1	2.7	3.7	2.7	2.1

Conclusions: since Aluminising (which was in 2004, or 13 years ago) the reflectivity has reduced significantly more in blue than in red.

An identical trend is seen after washing the primary mirror, also with 3-4 times greater loss in blue than red, relative to fresh aluminium

The loss of reflectivity relative to fresh aluminium is almost uniformly 2.5 times greater in M2 than in a washed primary mirror.

There is relatively less scattering in 2 red bands compared with a washed mirror.

Note since M2 faces downward it does not accumulate falling dust. The losses seen here are therefore purely from ageing.

Dusty INT (pre-wash) rel. fresh Alum. 10.4 9.8 9.6 9.6 9.6 9.4 10.3 percent