



16th Edition of the QUALICOAT Specifications – Update Sheet – SPEC-US03

Subject: Appendices on colour tolerances
(for QUALICOAT laboratories)

Proposal/Request: Powders WG

Resolution No. 10/TC 22.11.17

QUALICOAT resolution: The TC asked the Powders WG to decide where acceptable tolerances should be published and to start working on a concept of RAL tolerances for coaters.

Valid from: 1 JANUARY 2020

Amendments to the Specifications:

- Transfer of the Specifications for batch treatment (former Appendix A8) to Appendix A7
- New Appendix A8 – List of colour tolerances before granting or renewing an approval (for QUALICOAT laboratories)
- New Appendix A12 (former Appendix A7) – Lists of colour tolerances after weathering tests for granting or renewing an approval (for QUALICOAT laboratories)

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A8 A7 - Specifications for batch treatment

1. Introduction

[...]

A8 – List of colour tolerances before granting or renewing an approval (for QUALICOAT laboratories)¹

¹ The powder suppliers shall indicate which RAL card they use on the label, so that the laboratory knows which reference to work with. QUALICOAT recommends using the RAL GL Card for categories 2 and 3 solid powder coatings and RAL HR for category 1 and for textured coatings.



RAL	Tolerance	RAL	Tolerance	RAL	Tolerance	RAL	Tolerance	RAL	Tolerance	RAL	Tolerance
1000	2.00	3000	2.80	5000	2.00	6000	2.00	7000	2.00	8000	2.00
1001	2.00	3001	2.80	5001	2.00	6001	2.80	7001	2.00	8001	2.00
1002	2.00	3002	2.80	5002	2.00	6002	2.80	7002	1.40	8002	2.00
1003	3.60	3003	2.80	5003	2.00	6003	2.00	7003	1.40	8003	2.00
1004	3.60	3004	2.00	5004	2.00	6004	2.00	7004	1.00	8004	2.00
1005	3.60	3005	2.00	5005	2.00	6005	2.00	7005	1.40	8007	2.00
1006	3.60	3007	1.40	5007	2.00	6006	1.40	7006	1.40	8008	2.00
1007	3.60	3009	2.00	5008	2.00	6007	1.40	7008	2.00	8011	2.00
1011	2.00	3011	2.80	5009	2.00	6008	1.40	7009	1.40	8012	2.00
1012	2.80	3012	2.00	5010	2.00	6009	1.40	7010	1.40	8014	1.40
1013	1.00	3013	2.80	5011	2.00	6010	2.80	7011	1.40	8015	2.00
1014	2.00	3014	2.00	5012	2.00	6011	2.00	7012	1.40	8016	1.40
1015	1.00	3015	1.00	5013	2.00	6012	1.40	7013	1.40	8017	1.40
1016	2.80	3016	2.80	5014	2.00	6013	2.00	7015	1.40	8019	1.40
1017	2.80	3017	2.80	5015	2.00	6014	1.40	7016	2.00	8022	1.40
1018	2.80	3018	2.80	5017	2.00	6015	1.40	7021	1.40	8023	2.80
1019	1.00	3020	2.80	5018	2.00	6016	2.00	7022	1.40	8024	2.80
1020	2.00	3022	2.80	5019	2.00	6017	2.80	7023	1.40	8025	1.40
1021	3.60	3027	2.80	5020	2.00	6018	2.80	7024	1.40	8028	1.40
1023	3.60	3028	2.80	5021	2.00	6019	1.20	7026	2.00	9001	1.00
1024	2.00	3031	2.80	5022	2.00	6020	1.40	7030	1.00	9002	1.00
1027	2.80	4001	1.40	5023	2.00	6021	2.00	7031	2.00	9003	1.00
1028	3.60	4002	2.00	5024	2.00	6022	1.40	7032	1.00	9004	1.40
1032	3.60	4003	1.40			6024	2.80	7033	1.40	9005	1.40
1033	3.60	4004	2.00			6025	2.80	7034	1.40	9010	1.00
1034	2.80	4005	2.00			6026	2.00	7035	1.00	9011	1.40
1037	3.60	4006	1.40			6027	2.00	7036	1.00	9016	1.00
2000	3.60	4007	1.40			6028	2.00	7037	1.40	9017	1.40
2001	2.80	4008	1.40			6029	2.00	7038	1.00	9018	1.00
2002	2.80	4009	1.20			6032	2.80	7039	1.40		
2003	2.80	4010	2.00			6033	2.00	7040	1.00		
2004	3.60					6034	2.00	7042	1.00		
2008	3.60					6037	2.80	7043	1.40		
2009	3.60							7044	1.00		
2010	2.80							7045	1.00		
2011	3.60							7046	1.40		
2012	2.80							7047	1.00		

A12 – Lists of colour tolerances after weathering tests for granting or renewing an approval (for QUALICOAT laboratories)

Colour tolerances after the weathering test for Class 1 & 1.5 organic coatings ²																	
RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E
1000	3.0	2000	4.0	<u>3000</u>	5.0	4001	4.0	5000	4.0	6000	4.0	7000	3.0	8000	3.0	<u>9001</u>	2.0
1001	3.0	<u>2001</u>	5.0	3001	5.0	4002	4.0	5001	4.0	6001	4.0	<u>7001</u>	3.0	<u>8001</u>	3.0	<u>9002</u>	2.0
1002	3.0	2002	6.0	<u>3002</u>	5.0	<u>4003</u>	5.0	<u>5002</u>	4.0	<u>6002</u>	4.0	7002	3.0	8003	3.0	<u>9003</u>	2.0
<u>1003</u>	4.0	2003	6.0	<u>3003</u>	4.0	4004	4.0	<u>5003</u>	4.0	<u>6003</u>	4.0	7003	3.0	8004	3.0	<u>9004</u>	4.0
<u>1004</u>	4.0	<u>2004</u>	4.0	3004	4.0	<u>4005</u>	4.0	5004	4.0	6004	4.0	<u>7004</u>	3.0	<u>8007</u>	3.0	<u>9005</u>	4.0
1005	5.0	2008	6.0	<u>3005</u>	4.0	4006	4.0	<u>5005</u>	4.0	<u>6005</u>	3.0	7005	3.0	8008	3.0	<u>9006</u>	2.0
1006	5.0	<u>2009</u>	4.0	3007	4.0	4007	4.0	<u>5007</u>	3.0	6006	4.0	7006	3.0	<u>8011</u>	3.0	<u>9007</u>	2.0
<u>1007</u>	5.0	2010	6.0	<u>3009</u>	4.0	4008	4.0	<u>5008</u>	4.0	6007	3.0	7008	3.0	8012	3.0	<u>9010</u>	2.0
<u>1011</u>	3.0	2011	6.0	<u>3011</u>	4.0	4009	4.0	5009	4.0	6008	3.0	7009	3.0	<u>8014</u>	3.0	<u>9011</u>	4.0
<u>1012</u>	3.0	2012	4.0	<u>3012</u>	2.0	4010	4.0	<u>5010</u>	4.0	<u>6009</u>	4.0	7010	3.0	8015	3.0	<u>9016</u>	2.0
<u>1013</u>	2.0			3013	5.0			<u>5011</u>	4.0	<u>6010</u>	4.0	7011	3.0	8016	3.0	9018	2.0
1014	3.0			3014	4.0			5012	4.0	<u>6011</u>	4.0	<u>7012</u>	3.0	<u>8017</u>	3.0	9022	2.0
<u>1015</u>	2.0			3015	4.0			5013	4.0	<u>6012</u>	3.0	7013	3.0	<u>8019</u>	3.0		
1016	6.0			<u>3016</u>	5.0			<u>5014</u>	4.0	<u>6013</u>	3.0	7015	3.0	8022	3.0		
1017	3.0			3017	8.0			<u>5015</u>	3.0	<u>6014</u>	4.0	<u>7016</u>	3.0	8024	3.0		
1018	6.0			<u>3018</u>	6.0			<u>5017</u>	4.0	6015	3.0	<u>7021</u>	3.0	8025	3.0		
<u>1019</u>	3.0			<u>3020</u>	4.0			5018	4.0	<u>6016</u>	4.0	<u>7022</u>	3.0	<u>8028</u>	3.0		
<u>1020</u>	3.0			<u>3022</u>	4.0			5019	4.0	<u>6017</u>	4.0	7023	3.0				
1021	6.0			3027	5.0			5020	4.0	<u>6018</u>	4.0	7024	3.0				
1023	6.0			3031	4.0			5021	4.0	6019	2.0	7026	3.0				
1024	3.0							5022	4.0	<u>6020</u>	3.0	7030	3.0				
1027	3.0							<u>5023</u>	4.0	<u>6021</u>	2.0	7031	3.0				
<u>1028</u>	8.0							5024	4.0	6022	3.0	<u>7032</u>	2				
1032	5.0									<u>6024</u>	3.0	7033	3.0				
1033	8									6025	4	7034	3				
1034	4									<u>6026</u>	4	<u>7035</u>	2				
1037	5									6027	2	7036	3				
										6028	4	<u>7037</u>	3				
										<u>6029</u>	4	<u>7038</u>	2				
										<u>6032</u>	3	<u>7039</u>	3				
										<u>6033</u>	3	<u>7040</u>	3				
										<u>6034</u>	2	<u>7042</u>	3				
												<u>7043</u>	3				
												<u>7044</u>	2				
												7045	3				
												7046	3				
												7047	2				

² Underlined colours are colours that have already been tested.



Colour tolerances after the weathering test for Class 2 organic coatings³

RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E
1000	3.0	2000	6.0	<u>3000</u>	6.0	4002	4.0	5000	4.0	6000	5.0	7000	4.0	8000	4.0	<u>9001</u>	2.0
1001	3.0	<u>2001</u>	5.0	3001	6.0	<u>4003</u>	5.0	<u>5001</u>	4.0	6001	5.0	<u>7001</u>	3.0	<u>8001</u>	3.0	<u>9002</u>	2.0
1002	3.0	2002	8.0	<u>3002</u>	6.0	4004	5.0	<u>5002</u>	4.0	<u>6002</u>	4.0	7002	4.0	8003	3.0	<u>9003</u>	2.0
<u>1004</u>	4.0	2003	6.0	<u>3003</u>	4.0	<u>4005</u>	4.0	<u>5003</u>	4.0	<u>6003</u>	5.0	7003	4.0	8004	4.0	<u>9004</u>	5.0
1005	6.0	2008	6.0	3004	4.0	4006	5.0	5004	5.0	6004	5.0	<u>7004</u>	4.0	<u>8007</u>	4.0	<u>9005</u>	5.0
1006	6.0	<u>2009</u>	4.0	<u>3005</u>	4.0	4007	5.0	<u>5005</u>	4.0	<u>6005</u>	3.0	7005	4.0	8008	4.0	<u>9006</u>	2.0
<u>1007</u>	6.0	2010	6.0	3007	4.0	4008	4.0	<u>5007</u>	3.0	6006	4.0	7006	4.0	<u>8011</u>	4.0	<u>9007</u>	2.0
<u>1011</u>	3.0	2012	4.0	<u>3009</u>	4.0	4009	4.0	<u>5008</u>	5.0	6007	4.0	7008	4.0	8012	4.0	<u>9010</u>	2.0
<u>1013</u>	2.0			<u>3011</u>	5.0	4010	5.0	5009	4.0	6008	5.0	7009	4.0	<u>8014</u>	3.0	<u>9011</u>	5.0
1014	3.0			<u>3012</u>	2.0			<u>5010</u>	4.0	<u>6009</u>	4.0	7010	4.0	8015	4.0	<u>9016</u>	2.0
<u>1015</u>	2.0			3013	6.0			<u>5011</u>	5.0	<u>6010</u>	5.0	7011	4.0	8016	4.0	9018	2.0
1016	6.0			3014	4.0			5012	4.0	<u>6011</u>	4.0	<u>7012</u>	4.0	<u>8017</u>	4.0	9022	2.0
1017	3.0			<u>3016</u>	5.0			5013	5.0	<u>6012</u>	4.0	7013	4.0	<u>8019</u>	3.0		
<u>1019</u>	2.5			<u>3022</u>	4.0			<u>5014</u>	4.0	<u>6013</u>	3.0	7015	4.0	8022	5.0		
<u>1020</u>	6.0			3027	6.0			<u>5015</u>	3.0	<u>6014</u>	4.0	<u>7016</u>	3.0	8024	4.0		
1021	6.0			3031	4.0			<u>5017</u>	5.0	6015	4.0	<u>7021</u>	4.0	8025	4.0		
1023	3.0							5018	5.0	<u>6016</u>	5.0	<u>7022</u>	4.0	<u>8028</u>	3.0		
1024	3.0							<u>5019</u>	4.0	<u>6017</u>	5.0	7023	3.0				
1027	3.0							5020	5.0	<u>6018</u>	4.0	7024	4.0				
1032	6.0							5021	4.0	6019	2.0	7026	4.0				
1034	4.0							5022	5.0	<u>6020</u>	2.0	7030	2.0				
1037	6.0							<u>5023</u>	4.0	<u>6021</u>	4.0	7031	4.0				
<u>1038</u>	2.0							5024	4.0	6022	4.0	<u>7032</u>	2.0				
										<u>6024</u>	3.0	7033	3.0				
										6025	5.0	7034	3.0				
										<u>6026</u>	5.0	<u>7035</u>	2.0				
										6027	2.0	7036	3.0				
										6028	5.0	<u>7037</u>	2.5				
										<u>6029</u>	4.0	<u>7038</u>	2.0				
										<u>6032</u>	3.0	<u>7039</u>	4.0				
										<u>6033</u>	2.0	<u>7040</u>	3.0				
										<u>6034</u>	2.0	<u>7042</u>	3.0				
												<u>7043</u>	3.0				
												<u>7044</u>	2.0				
												7045	3.0				
												7046	4.0				
												7047	2.0				

³ Underlined colours are colours that have already been tested.



Colour tolerances after the weathering test for Class 3 organic coatings													
RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E	RAL	Δ E
1000	3.0	3004	5.0	5000	5.0	6000	5.0	7000	4.0	8000	4.0	9001	3.0
1001	3.0	3005	5.0	5001	5.0	6001	5.0	7001	4.0	8001	4.0	9002	3.0
1002	3.0	3007	5.0	5003	5.0	6002	5.0	7002	4.0	8002	4.0	9003	3.0
1011	3.0	3009	5.0	5004	5.0	6003	5.0	7003	4.0	8003	4.0	9004	5.0
<u>1013</u>	3.0	3011	5.0	5005	5.0	6004	5.0	7004	4.0	8004	4.0	9005	5.0
1014	3.0	3012	5.0	5007	5.0	6005	5.0	7005	4.0	8007	4.0	9006	4.0
1015	3.0			5008	5.0	6006	5.0	7006	4.0	8008	4.0	<u>9007</u>	4.0
1019	3.0			5009	5.0	6007	5.0	7008	4.0	8011	4.0	9010	3.0
1020	6.0			5010	5.0	6008	5.0	7009	4.0	8012	4.0	9011	5.0
1024	3.0			5011	5.0	6009	5.0	7010	4.0	8014	4.0	9016	3.0
				5012	5.0	6010	5.0	7011	4.0	8015	4.0	9017	5.0
				<u>5013</u>	5.0	6011	5.0	7012	4.0	8016	4.0	9018	3.0
				5014	5.0	6012	5.0	7013	4.0	8017	4.0	9022	4.0
				5015	5.0	6013	5.0	7015	4.0	8019	4.0		
				5017	5.0	6014	5.0	7016	4.0	8022	5.0		
				5018	5.0	6015	5.0	7021	4.0	8023	4.0		
				5019	5.0	6017	5.0	7022	4.0	8024	4.0		
				5020	5.0	6020	5.0	7023	4.0	8025	4.0		
				5021	5.0	<u>6021</u>	5.0	7024	4.0	8028	4.0		
				5022	5.0	6022	5.0	7026	4.0				
				5023	5.0	6025	5.0	7030	4.0				
				5024	5.0	6026	5.0	7031	4.0				
						6028	5.0	7032	3.0				
						6033	5.0	7033	4.0				
								7034	4.0				
								7035	3.0				
								7036	4.0				
								7037	4.0				
								7038	3.0				
								7039	4.0				
								7040	4.0				
								7042	4.0				
								7043	4.0				
								7044	3.0				
								7045	4.0				
								7046	4.0				
								7047	3.0				