

**Declaration of Performance**

**DoP/CQ/S1015**

1	Unique identification of the product-type  <b>S1015</b> Carnsew Quarry																																																																																																				
2	Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4) <b>Stone Mastic Asphalt</b> <b>SMA 10 surf 100/150 RED</b>																																																																																																				
3	Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:  <b>Bituminous Mixtures : Stone Mastic Asphalt : Surface Course</b>																																																																																																				
4	Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5): <b>Colas Ltd, Rowfant, Crawley, West Sussex RH10 4NF</b>																																																																																																				
5	Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):  <b>Not Applicable</b>																																																																																																				
6	System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:  <b>System 2+</b>																																																																																																				
7	In case of the declaration of performance concerning a construction product covered by a harmonised standard: Notified factory production control certification body No. 0086 performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control and issued the certificate of conformity of the factory production control number 0086-CPD-590156.																																																																																																				
8	<b>Not Applicable</b>																																																																																																				
9	<table border="1"> <thead> <tr> <th>Essential characteristics</th> <th>Performance</th> <th>Harmonised Technical Specification EN</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>13108-5: 2006</td> </tr> <tr> <td>1. Adhesion of binder to aggregate 2. Stiffness 3. Resistance to permanent deformation 4. Resistance to fatigue 5. Skid resistance 6. Resistance to abrasion 7. Reaction to Fire 8. Dangerous substances 9. Durability 10. Noise Absorption</td> <td></td> <td></td> </tr> <tr> <td>2, 3, 4, 5, 9, 10</td> <td> <p align="center">Target grading passing sieve</p> <table border="1"> <thead> <tr> <th>Sieve (mm)</th> <th>Passing (%)</th> </tr> </thead> <tbody> <tr><td>14</td><td>100</td></tr> <tr><td>10</td><td>93</td></tr> <tr><td>6.3</td><td>38</td></tr> <tr><td>2</td><td>22</td></tr> <tr><td>0.063</td><td>10</td></tr> </tbody> </table> </td> <td>EN 12697-1: 2012</td> </tr> <tr> <td>1, 2, 3, 4, 5, 6, 9, 10</td> <td>Target binder content (%)</td> <td>6.5</td> </tr> <tr> <td rowspan="2">1, 2, 3, 4, 5, 9, 10</td> <td>Minimum void content</td> <td>V<sub>min</sub>1.5</td> </tr> <tr> <td>Maximum void content</td> <td>V<sub>max</sub>5</td> </tr> <tr> <td rowspan="3">2, 3, 4, 5, 9, 10</td> <td>Maximum Voids filled with Bitumen</td> <td>NPD</td> </tr> <tr> <td>Minimum Voids filled with Bitumen</td> <td>NPD</td> </tr> <tr> <td>Minimum Voids in Mineral Aggregate</td> <td>NPD</td> </tr> <tr> <td rowspan="7">3</td> <td>Minimum Marshall Stability</td> <td>NPD</td> </tr> <tr> <td>Maximum Marshall Stability</td> <td>NPD</td> </tr> <tr> <td>Minimum Marshall Flow</td> <td>NPD</td> </tr> <tr> <td>Maximum Marshall Flow</td> <td>NPD</td> </tr> <tr> <td>Minimum MQ</td> <td>NPD</td> </tr> <tr> <td>Maximum MQ</td> <td>NPD</td> </tr> <tr> <td>Resistance to Permanent Deformation</td> <td>NPD</td> </tr> <tr> <td>1, 9</td> <td>Water sensitivity</td> <td>NPD</td> </tr> <tr> <td rowspan="2">1, 2, 3, 4, 9</td> <td>Minimum temperature (°C)</td> <td>130</td> </tr> <tr> <td>Maximum Temperature (°C)</td> <td>170</td> </tr> <tr> <td rowspan="2">2, 9</td> <td>Minimum Stiffness</td> <td>NPD</td> </tr> <tr> <td>Maximum Stiffness</td> <td>NPD</td> </tr> <tr> <td>3, 9</td> <td>Maximum creep rate</td> <td>NPD</td> </tr> <tr> <td>4, 9</td> <td>Resistance to fatigue</td> <td>NPD</td> </tr> <tr> <td>6, 9</td> <td>Resistance to abrasion</td> <td>NPD</td> </tr> <tr> <td>7, 9</td> <td>Reaction to Fire</td> <td>NPD</td> </tr> <tr> <td>8, 9</td> <td>Dangerous substances</td> <td>NPD</td> </tr> <tr> <td>9</td> <td>Mixture SATS durability index</td> <td>NPD</td> </tr> <tr> <td>9</td> <td>Low temperature property</td> <td>NPD</td> </tr> <tr> <td>9</td> <td>Fracture toughness</td> <td>NPD</td> </tr> <tr> <td>9</td> <td>Resistance to fuel for application on airfields</td> <td>NPD</td> </tr> <tr> <td>9</td> <td>Resistance to de-icing fluids for application on airfields</td> <td>NPD</td> </tr> <tr> <td>1, 4</td> <td>Binder Drainage</td> <td>D0.3</td> </tr> </tbody> </table>	Essential characteristics	Performance	Harmonised Technical Specification EN			13108-5: 2006	1. Adhesion of binder to aggregate 2. Stiffness 3. Resistance to permanent deformation 4. Resistance to fatigue 5. Skid resistance 6. Resistance to abrasion 7. Reaction to Fire 8. Dangerous substances 9. Durability 10. Noise Absorption			2, 3, 4, 5, 9, 10	<p align="center">Target grading passing sieve</p> <table border="1"> <thead> <tr> <th>Sieve (mm)</th> <th>Passing (%)</th> </tr> </thead> <tbody> <tr><td>14</td><td>100</td></tr> <tr><td>10</td><td>93</td></tr> <tr><td>6.3</td><td>38</td></tr> <tr><td>2</td><td>22</td></tr> <tr><td>0.063</td><td>10</td></tr> </tbody> </table>	Sieve (mm)	Passing (%)	14	100	10	93	6.3	38	2	22	0.063	10	EN 12697-1: 2012	1, 2, 3, 4, 5, 6, 9, 10	Target binder content (%)	6.5	1, 2, 3, 4, 5, 9, 10	Minimum void content	V <sub>min</sub> 1.5	Maximum void content	V <sub>max</sub> 5	2, 3, 4, 5, 9, 10	Maximum Voids filled with Bitumen	NPD	Minimum Voids filled with Bitumen	NPD	Minimum Voids in Mineral Aggregate	NPD	3	Minimum Marshall Stability	NPD	Maximum Marshall Stability	NPD	Minimum Marshall Flow	NPD	Maximum Marshall Flow	NPD	Minimum MQ	NPD	Maximum MQ	NPD	Resistance to Permanent Deformation	NPD	1, 9	Water sensitivity	NPD	1, 2, 3, 4, 9	Minimum temperature (°C)	130	Maximum Temperature (°C)	170	2, 9	Minimum Stiffness	NPD	Maximum Stiffness	NPD	3, 9	Maximum creep rate	NPD	4, 9	Resistance to fatigue	NPD	6, 9	Resistance to abrasion	NPD	7, 9	Reaction to Fire	NPD	8, 9	Dangerous substances	NPD	9	Mixture SATS durability index	NPD	9	Low temperature property	NPD	9	Fracture toughness	NPD	9	Resistance to fuel for application on airfields	NPD	9	Resistance to de-icing fluids for application on airfields	NPD	1, 4	Binder Drainage	D0.3
Essential characteristics	Performance	Harmonised Technical Specification EN																																																																																																			
		13108-5: 2006																																																																																																			
1. Adhesion of binder to aggregate 2. Stiffness 3. Resistance to permanent deformation 4. Resistance to fatigue 5. Skid resistance 6. Resistance to abrasion 7. Reaction to Fire 8. Dangerous substances 9. Durability 10. Noise Absorption																																																																																																					
2, 3, 4, 5, 9, 10	<p align="center">Target grading passing sieve</p> <table border="1"> <thead> <tr> <th>Sieve (mm)</th> <th>Passing (%)</th> </tr> </thead> <tbody> <tr><td>14</td><td>100</td></tr> <tr><td>10</td><td>93</td></tr> <tr><td>6.3</td><td>38</td></tr> <tr><td>2</td><td>22</td></tr> <tr><td>0.063</td><td>10</td></tr> </tbody> </table>	Sieve (mm)	Passing (%)	14	100	10	93	6.3	38	2	22	0.063	10	EN 12697-1: 2012																																																																																							
Sieve (mm)	Passing (%)																																																																																																				
14	100																																																																																																				
10	93																																																																																																				
6.3	38																																																																																																				
2	22																																																																																																				
0.063	10																																																																																																				
1, 2, 3, 4, 5, 6, 9, 10	Target binder content (%)	6.5																																																																																																			
1, 2, 3, 4, 5, 9, 10	Minimum void content	V <sub>min</sub> 1.5																																																																																																			
	Maximum void content	V <sub>max</sub> 5																																																																																																			
2, 3, 4, 5, 9, 10	Maximum Voids filled with Bitumen	NPD																																																																																																			
	Minimum Voids filled with Bitumen	NPD																																																																																																			
	Minimum Voids in Mineral Aggregate	NPD																																																																																																			
3	Minimum Marshall Stability	NPD																																																																																																			
	Maximum Marshall Stability	NPD																																																																																																			
	Minimum Marshall Flow	NPD																																																																																																			
	Maximum Marshall Flow	NPD																																																																																																			
	Minimum MQ	NPD																																																																																																			
	Maximum MQ	NPD																																																																																																			
	Resistance to Permanent Deformation	NPD																																																																																																			
1, 9	Water sensitivity	NPD																																																																																																			
1, 2, 3, 4, 9	Minimum temperature (°C)	130																																																																																																			
	Maximum Temperature (°C)	170																																																																																																			
2, 9	Minimum Stiffness	NPD																																																																																																			
	Maximum Stiffness	NPD																																																																																																			
3, 9	Maximum creep rate	NPD																																																																																																			
4, 9	Resistance to fatigue	NPD																																																																																																			
6, 9	Resistance to abrasion	NPD																																																																																																			
7, 9	Reaction to Fire	NPD																																																																																																			
8, 9	Dangerous substances	NPD																																																																																																			
9	Mixture SATS durability index	NPD																																																																																																			
9	Low temperature property	NPD																																																																																																			
9	Fracture toughness	NPD																																																																																																			
9	Resistance to fuel for application on airfields	NPD																																																																																																			
9	Resistance to de-icing fluids for application on airfields	NPD																																																																																																			
1, 4	Binder Drainage	D0.3																																																																																																			
10	The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.																																																																																																				
Signed for and on behalf of the manufacturer by:																																																																																																					
Name & Function	Stewart Struthers Deputy CEO & Director - Products & Processes																																																																																																				
Place & Date of Issue	Carnsew Quarry 04 April 2016																																																																																																				
Signature																																																																																																					