

## BS 4987:2003 – Coated macadam (asphalt concrete) for roads and other paved areas Part 1 : Specification for constituent materials and for mixtures

Presented below is list of the most commonly used "coated macadam" in local authority type work with the new size descriptions.

**Suggested** binder grades, maximum temperatures and rates of spread for most common machine and hand-lay uses are included as a **guide**, consult the specification if you need something stiffer, or more easy to work.

Material Description (New size description with "old " size in brackets)	BS Clause	Tables	Bitumen (Pen.)	Description of Use	Thickness	Temp.		Rate of Spread, in sq. metres
						Max.	Min. Roll	
0/32mm. (28mm.) size dense base (roadbase) "recipe"	5.2	3 & 4	50	Type 1 roads	70/120	185	105	100mm. = 4.4
0/32mm. (28mm.) size dense base (roadbase) "recipe"	5.2	3 & 4	125	Type 2,3 and 4 roads	70/120	170	75	100mm. = 4.4
0/32mm. (28mm.) size dense binder course (basecourse) "recipe"	6.4	13 & 14	50	Type 1 roads	70/120	185	105	100mm. = 4.4
0/32mm. (28mm.) size dense binder course (basecourse) "recipe"	6.4	13 & 14	125	Type 2,3, and 4 roads	70/120	170	75	100mm. = 4.4
0/20mm. (20mm.) size dense binder course (basecourse) "recipe"	6.5	15 & 16	50	Type 1 roads	50/100	185	105	60mm. = 7.3
0/20mm. (20mm.) size dense binder course (basecourse) "recipe"	6.5	15 & 16	125	Type 2,3, and 4 roads	50/100	170	75	60mm. = 7.3
0/14mm. (14mm.) size close graded surface course (wearing course)	7.3	23,24&25	50	Type 1 roads	40/50	185	105	45mm.=9.7
0/14mm. (14mm.) size close graded surface course (wearing course)	7.3	23,24&25	125	Type 2,3 and 4 roads	40/50	150	80	45mm.=9.7
0/10mm. (10mm.) size close graded surface course (wearing course)	7.4	26,27&28	50	Type 1 roads	25/40	185	105	30mm. = 14.5
0/10mm. (10mm.) size close graded surface course (wearing course)	7.4	26,27&28	190	Type 2,3 and 4 roads	25/40	150	85	30mm. = 14.5
0/6mm. (6mm.) size dense surface course (wearing course)	7.5	29,30&31	190	Machine, and hand-lay in summer	20/30	150	85	20mm. = 22
0/6mm. (6mm.) size dense surface course (wearing course)	7.5	29,30&31	190/290	Machine, and hand-lay in winter	20/30	150/140	85/80	20mm. = 22
0/6mm. (6mm.) size medium graded surface course (wearing course)	7.6	33,34&35	190	Machine, and hand-lay in summer	20/30	150	85	20mm. = 23
0/6mm. (6mm.) size medium graded surface course (wearing course)	7.6	33,34&35	190/290	Machine, and hand-lay in winter	20/30	150/140	85/80	20mm. = 23
0/4mm. (3mm.) size fine graded surface course (wearing course) Predominantly footway use, formerly known as "fine cold asphalt"	7.7	34,35&36	290	Hand-lay	15/25	140	80	15mm. = 29

Note - In this list it is only the current 28mm. and the 3mm. size descriptions that have had there material descriptions changed (by the introduction of the new aggregate sizes) to a degree that may cause confusion in the future.

The British Standard clause and table numbers for the mixtures have stayed the same, as has the basic properties and characteristics of the mixtures.

What may change, and we will only be able to judge this with time, is binder and filler adjustment on those bituminous mixtures where it takes place, e.g. 0/20mm. (20mm.) size dense binder course (basecourse), but that will be an area where I expect our testing laboratory to have an input

### THE NOTES BELOW ARE FOR GENERAL GUIDANCE AND NOT NECESSARILY EXACTLY TO BS 4987, BUT ARE FOUNDED ON THAT STANDARD.

<ul style="list-style-type: none"> <li>◆ With hand-laying store bituminous materials in a manner to prevent heat loss, insulated lorry body, thermal quilts, hot-boxes, etc.</li> <li>◆ Always compact bituminous materials as soon as they are laid, above min. rolling temperature, ensure working practice to allow this to happen.</li> <li>◆ Do not lay in standing water, where possible remove water from patches and potholes prior to laying.</li> <li>◆ Do not lay on frozen ground.</li> <li>◆ Be aware of wind chill factor influencing heat loss and poor compaction.</li> <li>◆ Exercise care when "feathering out" material that has larger nominal size aggregate, i.e. above 10mm. aggregate size.</li> <li>◆ It is good practice to cut joints or a "chase" for larger materials when patching.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Take material temperatures when material is delivered to site, sample all bituminous materials appropriate to quantity that is laid.</li> <li>◆ One sample per week of each type of material, or one sample per 100 tonnes for larger quantities, or as material dictates if there are problems.</li> <li>◆ When using 290pen. bitumen always specify a "straight-run" bitumen, do not allow the supply of 290pen. bituminous material that has been "blended" from stiffer bitumens in the mixing process..</li> <li>◆ Do NOT use cutback ( volatile, "sticky" ) bituminous mixtures for general use, they will become problem areas in hotter weather.</li> <li>◆ Tack coat existing road surfaces at 0.35/0.55 litres per sq. metre, (not a blackwiggly line), paint vertical joints <u>completely</u> with bitumen, but do not overband joints, because of possible skidding problems.</li> </ul>
--	--