COMMON POSITION (EC) No 30/2000

adopted by the Council on 13 April 2000

with a view to adopting Directive 2000/…/EC of the European Parliament and of the Council of … amending Council Directive 92/23/EEC relating to tyres for motor vehicles and their trailers and to their fitting

(2000/C 195/02)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission [1],

Having regard to the opinion of the Economic and Social Committee [2],

Acting in accordance with the procedure referred to in Article 251 of the Treaty [3],

Whereas:

(1) Measures should be adopted for the purpose of ensuring the smooth functioning of the internal market.

(2) Council Directive 92/23/EEC of 31 March 1992 relating to tyres for motor vehicles and their trailers, and to their fitting [4] is one of the separate directives under the Community approval procedure introduced by Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type approval of motor vehicles and their trailers [5]; the provisions of Directive 70/156/EEC concerning systems, components and separate technical units for motor vehicles will thus apply to this Directive.

(3) For the purposes of implementing in particular Articles 3(4), and 4(3), of Directive 70/156/EEC, each separate Directive should contain, in an Annex thereto, an information document and an approval document drawn up in accordance with the Annex VI to Directive 70/156/EEC for the purpose of computerising approval; the approval document set out in Directive 92/23/EEC must therefore be amended.

(4) Article 4(2) of Council Directive 92/97/EEC of 10 November 1992 amending Directive 70/157/EEC relating to the permissible noise level and exhaust system of motor vehicles [6], states that any subsequent action intended, in particular, to reconcile the safety requirements with the need to limit the noise arising from contact between tyres and road surfaces will be adopted on the basis of a proposal from the Commission which will take account of the studies and research to be conducted in connection with that source of noise.

(5) A realistic, reproducible method enabling the noise arising from contact between tyres and road surfaces to be measured has been developed; on the basis of that new method of measurement, a study has been carried out in order to produce a numerical value for the sound level representing the tyre-road noise generated by various type of tyres fitted to various types of motor vehicle.

(6) Directive 92/23/EEC should be amended accordingly.

(7) The measures necessary for the implementation of Directive 92/23/EEC should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission [7],

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Directive 92/23/EEC shall be amended as follows:

1. 'EEC component type-approval', 'EEC type-approval' and 'EEC approval' shall be replaced in every instance by the term 'EC type-approval';

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[1] OJ C 30, 28.1.1998, p. 8.
[2] OJ C 235, 27.7.1998, p. 24.
[3] Opinion of the European Parliament of 18 February 1998 (OJ C 80, 16.3.1998, p. 90), Council Common Position of 13 April 2000 and Decision of the European Parliament of (not yet published in the Official Journal).
[4] OJ L 129, 14.5.1992, p. 95. Directive as amended by the 1994 Act of Accession.
[5] OJ L 42, 23.2.1970, p. 1. Directive as last amended by Directive 97/27/EC of the European Parliament and of the Council (OJ L 233, 25.8.1997, p. 1).
[6] OJ L 371, 19.12.1992, p. 1.
[7] OJ L 184, 17.7.1999, p. 23.

2. in Article 1, the first indent, shall read as follows:

'— "tyre" means any new pneumatic tyre including a winter tyre with holes for studs, in the form of original equipment or of a replacement, intended to be fitted to vehicles to which Directive 70/156/EEC applies. This definition does not cover winter tyres with studs,';

3. the following Article shall be inserted:

'*Article 1a*

1. The requirements set out in Annex V shall apply to tyres intended to be fitted to vehicles first used on or after 1 October 1980.

2. The requirements set out in Annex V shall not apply to:

(a) tyres whose speed rating is less than 80 km/h;

(b) tyres whose nominal rim diameter does not exceed 254 mm (or code 10) or is 635 mm or more (code 25);

(c) T type temporary use spare tyres as defined in 2.3.6 of Annex II;

(d) tyres designed only to be fitted to vehicles registered for the first time before 1 October 1980.';

4. Article 2 shall be replaced by the following:

'*Article 2*

1. Member States shall grant EC type-approval, under the conditions laid down in Annex I, to all types of tyres meeting the requirements of Annex II, and shall allocate to these an approval number as specified in Annex I.

2. Member States shall grant EC type-approval, under the conditions laid down in Annex I, to all types of tyres meeting the requirements of Annex V and shall allocate to these an approval number as specified in Annex I.

3. Member States shall grant EC type-approval to all vehicles in respect of their tyres under the conditions laid down in Annex III, where those tyres (including spare tyres, where appropriate) meet the requirements of Annex II and the requirements concerning vehicles laid down in Annex IV, and shall allocate to any such vehicle an approval number as specified in Annex III.';

5. the list of Annexes and the Annexes shall be amended in accordance with the Annex to this Directive;

6. the following Article shall be inserted:

'*Article 10a*

1. As from … (*), Member States may not:

(a) refuse to grant EC type-approval or national approval for a type of vehicle or type of tyre, or

(b) prohibit the registration, sale or entry into service of vehicles, and the sale or entry into service or use of tyres,

for reasons relating to the tyres and their fitting to new vehicles, if the vehicles or tyres comply with the requirements laid down in this Directive, as amended by Directive 2000/…/EC ([1]).

2. As from … (**), Member States may no longer grant EC type-approval, and shall refuse to grant national type-approval for those types of tyre which fall within the scope of this Directive and which do not meet the requirements of this Directive, as amended by Directive 2000/…/EC.

3. As from … (***), Member States may no longer grant EC type approval or national approval for a type of vehicle, for reasons relating to its tyres or their fitting, if the requirements of this Directive, as amended by Directive 2000/…/EC, are not met.

4. As from … (****), Member States shall:

(a) consider certificates of conformity accompanying new vehicles in accordance with the provisions of Directive 70/156/EEC as being no longer valid for the purposes of Article 7(1) of the said Directive, if the requirements of this Directive, as amended by Directive 2000/…/EC, are not met, and

(b) refuse the registration or prohibit the sale or entry into service of new vehicles which do not meet the requirements of this Directive, as amended by Directive 2000/…/EC.

5. As from 1 October 2005 the provisions of this Directive, as amended by Directive 2000/…/EC, shall apply, for the purposes of Article 7(2) of Directive 70/156/EEC, to all tyres which fall within the scope of this Directive.

(*) 18 months after the date of entry into force of this Directive.

(**) 24 months after the date of entry into force of this Directive.

(***) 30 months after the date of entry into force of this Directive.

(****) 42 months after the date of entry into force of this Directive.

([1]) Directive 2000/…/EC of the European Parliament and the Council of … amending Council Directive 92/23/EEC relating to tyres for motor vehicles and their trailers and to their fittings (OJ L …, p. …).'.

Article 2

1. Member States shall bring into force the laws, regulations and administrative provisions necessary in order to comply with this Directive before … (*). They shall forthwith inform the Commission thereof.

They shall apply these provisions from … (**) at the latest.

2. When Member States adopt the measures referred to in paragraph 1, they shall contain a reference to this Directive or shall be accompanied by such a reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

3. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 3

1. By … (***) at the latest, an amendment to Directive 92/23/EEC shall be adopted in accordance with the procedure referred to in Article 4(2) in order to introduce grip tests for tyres.

2. By … (****) the Commission shall submit proposals for measures in the filed of motor vehicle regulations, taking into account safety, environmental and energy-saving aspects, for the purpose of revising the provisions in Directive 92/23/EEC.

Article 4

1. The Commission shall be assisted by the Committee for Adaptation to Technical Progress set up by Article 13 of Directive 70/156/EEC hereinafter referred to as 'the Committee'.

2. Where reference is made to this paragraph Articles 5 and 7 of Decision 1999/468/EC shall apply, Having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

Article 5

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Communities*.

Article 6

This Directive is addressed to the Member States.

Done at …

For the European Parliament	*For the Council*
The President	*The President*
…	…

(*) 12 months after the date of entry into force of this Directive.
(**) 18 months after the date of entry into force of this Directive.
(***) 24 months after the date of entry into force of this Directive.
(***) 48 months after the date of entry into force of this Directive.

ANNEX

1. The list of Annexes will read as follows:

'ANNEX I	Administrative provisions for the EC type-approval of tyres
Appendix 1	Information document relating to EC type-approval for a type of tyre
Appenix 2	EC type-approval certificate (tyres)
Appendix 3	Information document relating to EC type-approval for a type of tyre relating to tyre/road noise emission
Appendix 4	EC type approval certificate (tyre/road noise emission)
ANNEX II ([1])	Requirements for tyres
Appendix 1	Explanatory figure
Appendix 2	List of symbols of load-capacity indices and corresponding maximum mass to be carried
Appendix 3	Arrangement of tyre markings
Appendix 4	Relationship between the pressure index and the units of pressure
Appendix 5	Measuring rim, outer diameter and section width of tyres of certain size designations
Appendix 6	Method of measuring tyre dimensions
Appendix 7	Load/speed test procedure
Appendix 8	Variation of load capacity index with speed; commercial-vehicle tyres radial and diagonal
ANNEX III	Administrative provisions for type-approval of vehicles with regard to the fitting of their tyres
Appendix 1	Information document for a vehicle
Appendix 2	EC type-approval certificate for a vehicle
ANNEX IV	Requirements for vehicles with regard to the fitting of their tyres
ANNEX V	Tyre/road noise emission
Appendix 1	Test method for tyre-road sound levels, coast-by method
Appendix 2	Test report
ANNEX VI	Specifications for the test site

([1]) The technical requirements for tyres are similar to those of Regulations Nos 30 and 54 of the UN Economic Commission for Europe (UN/ECE).'

2. Annex I is replaced by the following:

'*ANNEX I*

ADMINISTRATIVE PROVISIONS FOR THE EC TYPE-APPROVAL OF TYRES

1. APPLICATION FOR THE EC TYPE-APPROVAL OF A TYPE OF TYRE

1.1. The application for EC type-approval for a type of tyre pursuant to Article 3(4) of Directive 70/156/EEC is to be submitted by the tyre manufacturer.

1.1.1. The application for EC type-approval pursuant to Annex II is to be accompanied, in triplicate, by a description of the tyre type as described in the information document in Appendix 1.

1.1.1.1. The application must be accompanied (all in triplicate) by a sketch, or a representative photograph, which identifies the tyre tread pattern and a sketch of the envelope of the inflated tyre mounted on the measuring rim showing the relevant dimensions (see sections 6.1.1 and 6.1.2 of Annex II) of the type submitted for approval.

1.1.1.2. It must be accompanied either by the test report issued by the appointed technical service or by a number of samples to be determined by the approval authority.

1.1.2. The application for EC type-approval pursuant to Annex V is to be accompanied, in triplicate, by description of the tyre type as described in the information document in Appendix 3.

1.1.2.1. The application must be accompanied (all in triplicate) by sketches, drawings or photographs of the tread pattern(s) that is/are representative of the type of tyres.

1.1.2.2. It must also be accompanied either by the test report issued by the appointed technical service or by a number of samples to be determined by the approval authority.

1.2. The manufacturer may appply for EC type-approval to be extended.

1.2.1. to include modified tyre types for EC type-approvals pursuant to Annex II and/or

1.2.2. to include additional tyre size designations and/or amended brand names or manufacturer's trade descriptions and/or tread patterns for EC type-approvals pursuant to Annex V.

1.3. Until 31 December 2005 the approval authority may accept the laboratories of the tyre manufacturer as approved test laboratories pursuant to Article 14(1) of Directive 70/156/EEC.

2. INSCRIPTIONS

2.1. Samples of a type of tyre submitted for EC type-approval must bear the applicant's clearly visible and indelible trade mark or name and must allow sufficient space for the inscription of the EC type-approval mark as required in section 4 of this Annex.

3. EC TYPE-APPROVAL

3.1. EC type-approval pursuant to Article 4 of Directive 70/156/EEC is to be granted and an EC type-approval number is to be issued in respect of any tyre type, submitted in accordance with point 1.1.1 which satisfies the requirements of Annex II.

3.1.1. Notice of approval or extension or refusal or withdrawal of approval or of production definitely discontinued in relation to a tyre type pursuant to Annex II must be communicated to the Member States in accordance with Article 4(6) of Directive 70/156/EEC.

3.1.2. EC type-approval pursuant to Article 4 of Directive 70/156/EEC is to be granted and an EC type-approval number is to be issued in respect of any tyre type, submitted in accordance with point 1.1.2 which satisfies the requirements of Annex V.

3.2.1. Notice of approval or extension or refusal or withdrawal of approval or of production definitely discontinued in relation to a tyre type pursuant to Annex V must be communicated to the Member States in accordance with Article 4(6) of Directive 70/156/EEC.

3.3. An EC type-approval number is to be assigned to each tyre type-approved. The same Member State must not assign the same number to another tyre type. In particular, approval numbers assigned pursuant to Annex II and EC type-approval numbers assigned pursuant to Annex V must be different.

4. EC TYPE-APPROVAL MARKING

4.1. Any tyre conforming to a type in respect of which EC type-approval has been granted pursuant to this Directive must bear the relevant EC type-approval mark.

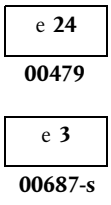
4.2. The EC type-approval mark will consist of a rectangle surrounding the lower case letter "e" followed by the distinguishing number of the Member State which has granted the type-approval as per Annex VII to Directive 70/156/EEC. The EC type-approval number will consist of the EC type-approval number shown on the certificate completed for the type, preceded by two figures: "00" for commercial vehicle tyres, "02" for passenger car tyres.

4.2.1. The rectangle forming the EC type-approval mark must have a minimum length of 12 mm and a minimum height of 8 mm. Letter(s) and number(s) must be at least 4 mm in height.

4.3. The EC type-approval marks and numbers, and any additional marks required in Annex II, section 3, the latter for the type-approval pursuant to the requirements of Annex II, must be affixed as prescribed in that section.

4.4. Approval numbers assigned pursuant to Annex V must be followed by the suffix "s" where "s" is an abbreviation for sound.

4.5. An example of the EC type-approval mark is given below:



The tyre bearing the EC type-approval mark shown above is a commercial vehicle tyre (99) satisfying the EC requirements (e), for which the EC type-approval mark has been granted in Ireland (24) under the number 479 pursuant to Annex II and in Italy (3) under the number 687-s pursuant to Annex V.

Note: The numbers "479" and "687" (EC-mark type-approval numbers) and the number "24" and the digit "3" (letters and number of the Member States which granted the EC approval) are for guidance only.

The approval numbers must be placed close to the rectangle and may be above, below, to the left or to the right. The characters of the approval number must all be on the same side of the "e" and face in the same direction.

5. MODIFICATIO OF A TYRE TYPE

5.1. If a tyre type-approved pursuant to Annex II or pursuant to Annex V has been modified, the provisions of Article 5 of Directive 70/156/EEC shall apply.

5.2. If the tread pattern of a tyre has been modified in the case of type-approvals pursuant to Annex II, no repetition of the tests prescribed in Annex II is considered necessary.

5.3. In the case where tyre-size designations or trade marks are added to a range of tyres type-approved pursuant to Annex V, any requirement for retesting shall be determined by the type approval authority.

5.4. In the case of modification of the tyre tread pattern of a range of tyres approved pursuant to Annex V, a representative set of samples shall be retested unless the type approval authority is satisfied that the modification does not affect the tyre/road noise emissions.

6. CONFORMITY OF PRODUCTION

6.1. The general rules to ensure the conformity of production shall be adopted in accordance with the provisions laid down in Article 10 of Directive 70/156/EEC.

6.2. In particular, when checks are carried out in accordance with Appendix 1 to Annex V in order to check the conformity of production, if the noise level of the tyre tested does not exceed the limit values set out in section 4.2 of Annex V by more than 1 dB(A), the production shall be deemed to conform the requirements of section 4 of the abovementioned Annex V.'

3. The title of Appendix 1 to Annex I will read as follows:

'*Appendix 1*

INFORMATION DOCUMENT No … RELATING TO EC TYPE-APPROVAL FOR A TYPE OF TYRE

(Annex II of Directive 92/23/EEC)'.

4. The title of Appendix 2 to Annex I shall read as follows:

'*Appendix 2*

EC TYPE-APPROVAL CERTIFICATE (tyres)

MODEL

(maximum format: A4 (210 x 297 mm)'.

5. In Appendix 2 to Annex I under point 'Communication concerning the' the following indents are added:

'— withdrawal of type-approval ([1]);

— discontinuation of production ([1])'.

6. The following Appendices are added to Annex I:

'*Appendix 3*

INFORMATION DOCUMENT No … RELATING TO EC TYPE-APPROVAL FOR A TYPE OF TYRE RELATING TO TYRE/ROAD NOISE EMISSION

(ANNEX V OF DIRECTIVE 92/23/EEC)

The following information, if applicable, must be supplied in triplicate and include a list of contents. Drawings, if any, must be supplied to an appropriate scale and in sufficient detail on size A4 or folded to that size. Relevant performance-related information must be supplied in the case of microprocessor controlled functions.

1. GENERAL

1.1. Manufacturer's name: . . . . . .

1.2. Name and address of applicant: . . . . . .

1.3. Address(es) of manufacturing plant(s): . . . . . .

1.4. Brand name(s), Trade description(s) or Trade mark(s) to be used for particular tyre type-approval requested: . . . . . .

2. TYRES

2.1. Tyre classification: (class C1, class C2 or class C3) ([1])

2.2. Category of use: (normal, snow or special) ([1])

2.3. Details of the major features, with respect to the effects on tyre/road noise emission, of the tread pattern(s) to be used on the designated range of tyre sizes. This may be by drawing, photograph or description but must be sufficient to allow the type approval authority or technical service to determine whether any subsequent changes to the major features will adversely affect the tyre/road noise emission.

Note: The effect of changes in minor details of tyre tread and construction on the tyre/road noise emission will be determined during checks on the conformity of production.

2.4. Tyre structure

2.5. List of tread-pattern designations: (specify for each trade mark or brand name and trade description the list of tyre designations as per point 2.17 of Annex II to Directive 92/23/EEC adding, in the case of class C1 tyres, the mark "Reinforced" or "Extra Load", if applicable) . . . . . .

(1) Delete as appropriate.

Appendix 4

EC TYPE-APPROVAL CERTIFICATE

(tyre-road noise emission)

MODEL

(maximum format: A4 (210 x 297 mm))

Stamp of administration

Communication concerning the:

— EC type-approval (1)

— extension of EC type-approval (1)

— refusal of EC type-approval (1)

— withdrawal of EC type-approval (1)

— discontinuation of production (1)

of a type of tyre with regard to Annex V to Directive 92/23/EEC, as last amended by Directive .../.../EC, relating to tyre/road noise emission.

EC type-approval No: ..... Extension No: .....

SECTION I

0. **General**

0.1. Manufacturer's name: . . . . . .

0.2. Name and address of applicant: . . . . . .

0.3. Address(es) of manufacturing plant(s): . . . . . .

SECTION II

1. **Additional information**

1.1. Brand name(s) and trade description(s): . . . . . .

1.2. Tyre classification: (class C1, class C2 or class C3) (1)

1.3. Category of use: (normal/snow/special) (1)

2. Technical service responsible for carrying out tests: . . . . . .

3. Date of test report: . . . . . .

4. Number of test report: . . . . . .

5. Grounds for extending EC type-approval (where appropriate): . . . . . .

6. Comments (if any): . . . . . .

7. Date and place: . . . . . .

8. Signature: . . . . . .

9. A list of documents making up the EC type-approval file lodged with the authority that has granted the approval and which may be obtained on request is attached.

([1]) Delete as appropriate.'

7. In Annex IV, section 3.1.1 will read as follows:

'3.1.1. Subject to the provisions of point 3.7.4, every tyre fitted to a vehicle, including where applicable any spare, must bear the EC type-approval mark(s) as specified in section 4 of Annex I or the type-approval mark indicating compliance with UN/ECE Regulations Nos 30 or 54. UN/ECE type-approval marks are considered to be equivalent only to the EC type-approval marks granted pursuant to Annex II.'

8. The following Annex and Appendices will be inserted:

'ANNEX V

TYRE/ROAD NOISE EMISSION

1. SCOPE

This Annex applies to the EC type-approval of tyres, as components, in respect of tyre/road noise emissions.

2. DEFINITIONS

For the purposes of this Annex, the definitions of Annex II shall apply, except for the definition under point 2.1, which shall read as follows:

2.1. "Type of tyre" means, in relation of type-approval pursuant to this Annex (tyre/road noise emission), a range of tyres consisting of a list of tyre size designations (see point 2.17 in Annex II), brand names, trade marks and trade descriptions which do not differ in such essential characteristics as:

— the manufacturer's name;

— the tyre classification (see section 2.4 of this Annex);

— the tyre structure (see section 2.1.4 of Annex II);

— the category of use (see section 2.1.3 of Annex II)

— for class C1 tyres, reinforced or extra load: the tread pattern (see 2.3 of Information Document, Annex I, Appendix 3).

Note: The effect of changes in minor details of tyre tread and construction on the tyre/road noise emission will be determined during checks on the conformity of production.

In addition, the following definitions shall also apply:

2.2. "Brand name or trade description" means the identification for the tyre as provided by the tyre manufacturer. The brand name may be the same as the manufacturer and the trade description may coincide with the trade mark.

2.3. "Tyre/road noise emission"

means the noise arising from the contact between tyres in motion and the road surface.

2.4. For the purpose of this Annex, the following classification shall apply:

class C1 tyres passenger car tyres (see point 2.32 of Annex II);

class C2 tyres commercial vehicle tyres (see section 2.33 of Annex II) with load capacity index in single formation ≤ 121 and speed category symbol ≥ "N" (see point 2.29.3 of Annex II);

class C3 tyres commercial vehicle tyres (see point 2.33 of Annex II) with load capacity index in single formation ≤ 121 and speed category symbol ≤ "M " (see point 2.29.3 of Annex II) or commercial vehicle tyres (see point 2.33 of Annex II) with load capacity index in single formation ≥ 122.

3. MARKING REQUIREMENTS

3.1. In addition to other marking requirements given in point 4 of Annex I and 3 of Annex II, the tyre must bear the following markings:

3.1.1. the manufacturer's name or trade mark; the brand name, the trade description or the trade mark.

4. TYRE/ROAD NOISE EMISSION REQUIREMENTS

4.1. *General requirements*

A set of four tyres bearing the same tyre size designation and tread pattern that is representative of the range of tyres, shall be submitted to a tyre/road noise emission level test to be carried out as specified in Appendix 1.

4.2. The noise levels determine in accordance with point 4.5 of Appendix 1 shall not exceed the following limits:

4.2.1. Class C1 tyres with reference to the nominal section width (see Annex II, point 2.17.1.1) of the tyre that has been tested:

Class of tyre	Nominal section width mm	Limit value — dB(A)
C1a	≤ 145	72
C1b	> 145 ≤ 165	73
C1c	> 165 ≤ 185	74
C1d	> 185 ≤ 215	75
C1e	> 215	76

4.2.1.1. For reinforced (or Extra Load) tyres (see Annex II, section 3.1.8), the limit values point 4.2.1 shall be increased by 1 dB(A).

4.2.1.2. For tyres classified in category of use "Special", (see Annex II, section 2.1.3), the limit values in point 4.2.1 shall be increased by 2 dB(A).

4.2.2. Class C2 tyres with reference to the category of use (see Annex II, point 2.1.3) of the range of tyres:

Category of use	Limit value expressed in dB(A)
Normal	75
Snow	77
Special	78

4.2.3. Class C3 tyres, with reference to the category of use (see Annex II, point 2.1.3) of the range of tyres:

Category of use	Limit value expressed in dB(A)
Normal	76
Snow	78
Special	79

Appendix 1

TEST METHOD FOR TYRE-ROAD SOUND LEVELS

Coast-by method

0. INTRODUCTION

The presented method contains specifications on measuring instruments, measurement conditions and the measurement method, in order to obtain the noise level of a set of tyres mounted on a test vehicle rolling at high speed on a specified road surface. The maximum sound pressure level is to be recorded, when the test vehicle is coasting, by remote-field microphones; the final result for a reference speed is obtained from a linear regression analysis. Such test results cannot be related to tyre noise measured during acceleration under power or deceleration during braking.

1. MEASURING INSTRUMENTS

1.1. *Acoustic measurements*

The sound level meter or the equivalent measuring system, including the windscreen recommended by the manufacturer, shall at least meet the requirements of Type 1 instruments in accordance with IEC 60651, second edition.

The measurements shall be made using the frequency weighting A, and the time weighting F.

When using a system that includes a periodic monitoring of the A-weighted sound level, a reading should be made at a time interval not greater than 30 ms.

1.1.1. Calibration

At the beginning and at the end of every measurement session, the entire measurement system shall be checked by means of a sound calibrator that fulfils the requirements for sound calibrators of at least precision Class 1 according to IEC 942:1988. Without any further adjustment the difference between the readings of two consecutive checks shall be less than or equal to 0.5 dB. If this value is exceeded, the results of the measurements obtained after the previous satisfactory check shall be discarded.

1.1.2. Compliance with requirements

The compliance of the sound calibration device with the requirements of IEC 60942:1988 shall be verified once a year and the compliance of the instrumentation system with the requirements of IEC 60651:1979/A1:1993, second edition, shall be verified at least every two years by a laboratory which is authorised to perform calibrations traceable to the appropriate standards.

1.1.3. Positioning of the microphone

The microphone (or microphones) must be located at a distance of 7,5 m ± 0,05 m from track reference line CC′ (figure 1) and 1,2 m ± 0,02 m above the ground. Its axis of maximum sensitivity must be horizontal and perpendicular to the path of the vehicle (line CC′).

1.2. *Speed measurements*

The vehicle speed shall be measured with instruments with an accuracy of ± 1 km/h or better when the front end of the vehicle has reached line PP′ (figure 1).

1.3. *Temperature measurements*

Measurements of air as well as test surface temperature are mandatory. The temperature measuring devices shall be accurate with ± 1 °C.

1.3.1. Air temperature

The temperature sensor is to be positioned in an unobstructed location close to the microphone in such a way that it is exposed to the airflow and protected from direct solar radiation. The latter may be achieved by any shading screen or similar device. The sensor should be positioned at a height of 1,2 m ± 0,1 m above the test surface level in order to minimise the influence of the test surface thermal radiation at low airflows.

1.3.2. Test surface temperature

The temperature sensor is to be positioned in a location where the temperature measured is representative of the temperature in the wheel tracks, without interfering with the sound measurement.

If an instrument with a contact temperature sensor is used, heat-conductive paste shall be applied between the surface and the sensor to ensure adequate thermal contact.

If a radiation thermometer (pyrometer) is used, the height should be chosen to ensure that a measuring spot with a diameter of ≥ 0,1 m is covered.

1.4. *Wind measurement*

The device must be capable of measuring the wind speed with a tolerance of ± 1 m/s. The wind shall be measured at microphone height. The wind direction with reference to the driving direction shall be recorded.

2. CONDITIONS OF MEASUREMENT

2.1. *Test site*

The test site must consist of a central section surrounded by a substantially flat test area. The measuring section must be level; the test surface must be dry and clean for all measurements. The test surface shall not be artificially cooled during or prior to the testing.

The test track must be such that the conditions of a free sound field between the sound source and the microphone are attained to within 1 dB(A). These conditions shall be deemed to be met if there are no large sound reflecting objects such as fences, rocks, bridges or building within 50 m of the centre of the measuring section. The surface of the test track and the dimensions of the test site shall be in accordance with Appendix 2 to this Annex.

A central part of at least 10 m radius shall be free of powdery snow, tall grass, loose soil, cinders or the like. There must be no obstacle which could affect the sound field within the vicinity of the microphone and no persons shall stand between the microphone and the sound source. The operator carrying out the measurements and any observers attending the measurements must position themselves so as not to affect the readings of the measuring instruments.

2.2. *Meteorological conditions*

Measurements shall not be made under poor atmospheric conditions. It must be ensured that the results are not affected by gusts of wind. Testing shall not be performed if the wind speed at the microphone height exceed 5 m/s.

Measurements shall not be made if the air temperature is below 5 °C or above 50 °C.

2.3. *Ambient noise*

The background sound level (including any wind noise) shall be at least 10 dB(A) less than the measured tyre-road sound emission. A suitable windscreen may be fitted to the microphone provided that account is taken of its effect on the sensitivity and directional characteristics of the microphone.

Any measurement affected by a sound peak which appears to be unrelated to the characteristics of the general sound level of tyres shall be ignored.

2.4. *Test vehicle requirements*

2.4.1. General

The test vehicle shall be a motor vehicle and be fitted with four single tyres on just two axles.

2.4.2. Vehicle load

The vehicle must be loaded such as to comply with the test tyre loads as specified in section 2.5.2 below.

2.4.3. Wheelbase

The wheelbase between the two axles fitted with the test tyres shall for Class C1 be less than 3,50 m and for Class C2 and Class C3 tyres be less than 5 m.

2.4.4. Measures to minimise vehicle influence on sound level measurements

To ensure that tyre noise is not significantly affected by the test vehicle design the following requirements and recommendations are given.

Requirements:

(a) Spray suppression flaps or other extra device to suppress spray shall not be fitted.

(b) Addition or retention of elements in the immediate vicinity of the rims and tyres, which may screen the emitted sound, is not permitted.

(c) Wheel alignment (toe in, camber and castor) shall be in full accordance with the vehicle manufacturer's recommendations.

(d) Additional sound absorbing material may not be mounted in the wheel housings or under the underbody.

(e) Suspension shall be in such a condition that it does not result in an abnormal reduction in ground clearance when the vehicle is loaded in accordance with the testing requirement. If available, body level regulation systems shall be adjusted to give a ground clearance during testing which is normal for unladen condition.

Recommendations to avoid parasitic sound:

(a) Removal or modification of components on the vehicle that may contribute to the background sound of the vehicle is recommended. Any removals or modifications shall be recorded in the test report.

(b) During testing it should be ascertained that brakes are not poorly released, causing brake noise.

(c) It should be ascertained that electric cooling fans are not operating.

(d) Windows and sliding roof of the vehicle shall be closed during testing.

2.5. *Tyres*

2.5.1. General

Four identical tyres of the same type and range must be fitted to the test vehicle. In the case of tyres with a load capacity index in excess of 121 and without any dual fitting indication, two of these tyres of the same type and range must be fitted to the rear axle of the test vehicle; the front axle must be fitted with tyres of a size suitable for the axle load and planed down to the minimum depth in order to minimise the influence of tyre/road contact noise while maintaining a sufficient level of safety. Winter tyres that in certain Member States may be equipped with studs intended to enhance friction shall be tested without this equipment. Tyres with special fitting requirements shall be tested in accordance with these requirements (e.g. rotation direction). The tyres must have full tread depth before being run-in.

Tyres are to be tested on rims permitted by the tyre manufacturer.

2.5.2. Tyre loads

The test load Q_t for each tyre on the test vehicle shall be 50 % to 90 % of the reference load Q_r, but the average test load $Q_{t,avr}$ of all tyres shall be 75 % ± 5 % of the reference load Q_r.

For all tyres the reference load Q_r corresponds to the maximum mass associated with the load capacity index of the tyre. In the case where the load capacity index is constituted by two numbers divided by slash (/), reference shall be made to the first number.

2.5.3. Tyre inflation pressure

Each tyre fitted on the test vehicle shall have a test pressure P_t not higher than the reference pressure P_r and within the interval:

$$P_r(Q_t/Q_r)^{1,25} \leq P_t \leq 1,1\ P_r(Q_t/Q_r)^{1,25}$$

where P_r is the pressure corresponding to the pressure index marked on the sidewall.

For Class C1 the reference pressure is Pr = 250 kPa for 'standard' tyres and 290 kPa for 'reinforced' tyres, the minimum test pressure shall be P_t = 150 kPa.

2.5.4. Preparations prior to testing

The tyres should be 'run-in' prior to testing to remove compound nodules or other tyre pattern characteristics resulting from the moulding process. This will normally require the equivalent of about 100 km of normal use on the road.

The tyres fitted to the test vehicle shall rotate in the same direction as when they were run-in.

Prior to testing tyres shall be warmed up by running under test conditions.

3. METHOD OF TESTING

3.1. *General conditions*

For all measurements the vehicle must be driven in a straight line over the measuring section (AA′to BB′) in such a way that the median longitudinal plane of the vehicle is as close as possible to the line CC′.

When the front end of the test vehicle has reached the line AA′, the vehicle's driver must have put the gear selector on neutral position and switched off the engine. If abnormal noise (e.g. ventilator, self-ignition) is emitted by the test vehicle during the measurement, the test must be repeated.

3.2. *Nature and number of measurements*

The maximum sound level expressed in A-weighted decibels (dB(A)) shall be measured to the first decimal place as the vehicle is coasting between lines AA′ and BB′ (figure 1 — front end of the vehicle on line AA′, rear end of the vehicle on line BB′). This value will constitute the result of the measurement.

At least four measurements shall be made on each side of the test vehicle at test speeds lower than the reference speed specified in paragraph 4.1. and at least four measurements at test speeds higher than the reference speed. The speeds shall be approximately equally spaced over the speed range specified in paragraph 3.3.

3.3. *Test speeds*

The test vehicle speeds shall be within the range:

(i) from 70 km/h to 90 km/ for Class C1 and Class C2 tyres;

(ii) from 60 km/h to 80 km/h for Class C3 tyres.

4. INTERPRETATION OF RESULTS

The measurements shall be invalid if an abnormal discrepancy between the maximum value and the other values is recorded.

4.1. *Determination of test result*

Reference speed V_{ref} used to determine the final result will be:

(i) 80 km/h for Class C1 and Class C2 tyres;

(ii) 70 km/h for Class C3 tyres.

4.2. *Regression analysis of noise measurements*

The (not temperature corrected) tyre-road noise level L_R in dB(A) is determined by a regression analysis according to:

$$L_R = \overline{L} - \alpha \cdot \overline{v}$$

where:

$\overline{L}$ is the mean value of the noise levels L_i in dB(A):

$$\overline{L} = \frac{1}{n}\sum_{i=1}^{n} L_i$$

n is the measurement number ($n \geq 16$)

$\overline{v}$ is the mean value of logarithms of speeds v_i:

$$\overline{v} = \frac{1}{n}\sum_{i=1}^{n} v_i$$

With

$$v_i = lg(v_i / v_{ref})$$

α is the slope of the regression line in dB(A):

$$\alpha = \frac{\sum_{i=1}^{n}(v_i - \overline{v})(L_i - \overline{L})}{\sum_{i=1}^{n}(v_i - \overline{v})^2}$$

4.3. *Temperature correction*

For Class C2 tyres, the final result shall be normalised to a test surface reference temperature θ_{ref} by applying a temperature correction, according to the following:

$$L_R(\theta_{ref}) = L_R(\theta) + K(\theta_{ref} - \theta)$$

where θ is the measured test surface temperature,

$$\theta_{ref} = 20\ °C$$

For Class C1 tyres, the coefficient

K is −0,03 dB(A)/°C when $\theta > \theta_{ref}$

and K is −0,06 dB(A)/°C when $\theta < \theta_{ref}$

For Class C2 tyres, the coefficient

K is −0,02 dB(A)/°C

If the measured test surface temperature does not change by more than 5°C within all measurements necessary for the determination of the sound level of one set of tyres, the temperature correction may be made only on the final reported tyre-road sound level as indicated above, utilising the arithmetic mean value of the measured temperatures. Otherwise each measured sound level L_i shall be corrected, utilising the temperature at the time of the sound recording.

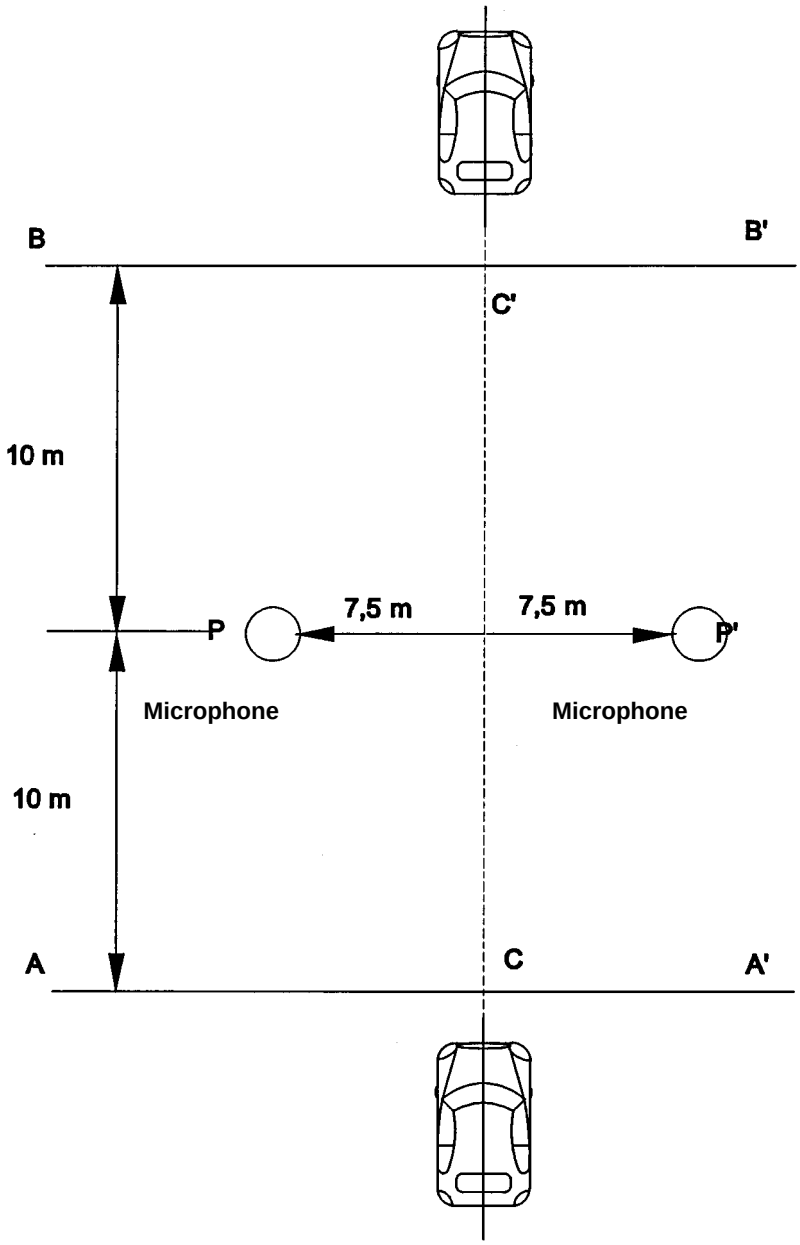
There will be no temperature correction for Class C3 tyres.

4.4. In order to take account of any measuring instrument inaccuracies, the results according to point 4.3 shall be reduced by 1 dB(A).

4.5. The final result, the temperature corrected tyre-road noise level L_R (θ_{ref}) in dB(A), shall be rounded down to the nearest lower whole value.

Figure 1

Microphone positions for the measurement



Appendix 2

TEST REPORT

The test report shall include the following information:

(a) meteorological conditions inclusive of air and test surface temperature for each test run;

(b) date and method of check on compliance of the test surface with ISO 10844:1994;

(c) test rim width;

(d) tyre data: manufacturer, brand name, trade name, size, load index, reference pressure;

(e) test vehicle description and wheelbase;

(f) tyre test load Q_t in N and in per cent of the reference load Q_r for each test tyre, average test load $Q_{t,avr}$ and in per cent of the reference load Q_r;

(g) cold inflation pressure in kPa for each test tyre;

(h) test speeds when the vehicle passed line PP';

(i) maximum A-weighted sound levels for each test run and each microphone;

(j) the test result L_R: A-weighted sound level in decibel at reference speed, corrected for temperature (if applicable), rounded down to the nearest lower whole value;

(k) regression line slope.'

9. The following Annex will be added:

'ANNEX VI

SPECIFICATIONS FOR THE TEST SITE

1. INTRODUCTION

This Annex describes the specifications relating to he physical characteristics and the laying of the test track. These specification based on a special standard ([1]) describe the required physical characteristics as well as the test methods for these characteristics.

2. REQUIRED CHARACTERISTICS OF THE SURFACE

A surface is considered to conform to this standard provided that the texture and voids content or sound absorption coefficient have been measured and found to fulfil all the requirements of points 2.1 to 2.4 and provided that the design requirements (point 3.2) have been met.

2.1 *Residual voids content*

The residual voids content (VC) of the test track paving mixture shall not exceed 8 %. For the measurement procedure, see section 4.1.

2.2 *Sound absorption coefficient*

If the surface fails to comply with residual voids content requirement, the surface is acceptable only if its sound absorption coefficient $\alpha \leq 0{,}10$. For the measurement procedure, see point 4.2. The requirement of points 2.1 and 2.2 is also met if only sound absorption has been measured and found to be $\alpha \leq 0{,}10$.

Note: The most relevant characteristic is the sound absorption, although the residual voids content is more familiar among road constructors. However, sound absorption needs to be measured only if the surface fails to comply with the voids requirement. This is justified because the residual voids content has relatively large uncertainties in terms of both measurements and relevance and some surfaces may therefore erroneously be rejected when based only on the voids measurement.

2.3. *Texture depth*

The texture depth (TD) measured according to the volumetric method (see point 4.3. below) shall be:

$$TD \geq 0{,}4 \text{ mm}$$

2.4. *Homogeneity of the surface*

Every practical effort shall be taken to ensure that the surface is made to be as homogeneous as possible within the test area. This includes the texture and voids content, but it should also be observed that if the rolling process results in more effective rolling at some places than others, the texture may be different and unevenness causing bumps may also occur.

2.5. *Period of testing*

In order to check whether the surface continues to conform to the texture and voids content or sound absorption requirements stipulated in this Annex, periodic testing of the surface shall be carried out at the following intervals:

(a) For residual voids content (*VC*) or sound absorption (α):

— when the surface is new;

— if the surface meets the requirements when new, no further periodical testing is required. If it does not meet the requirement when it is new; it may do so later because surfaces tend to become clogged and compacted with time.

(b) For texture depth (TD):

— when the surface is new;

— when the noise testing starts (N.B: not before four weeks after laying);

— then every twelve months.

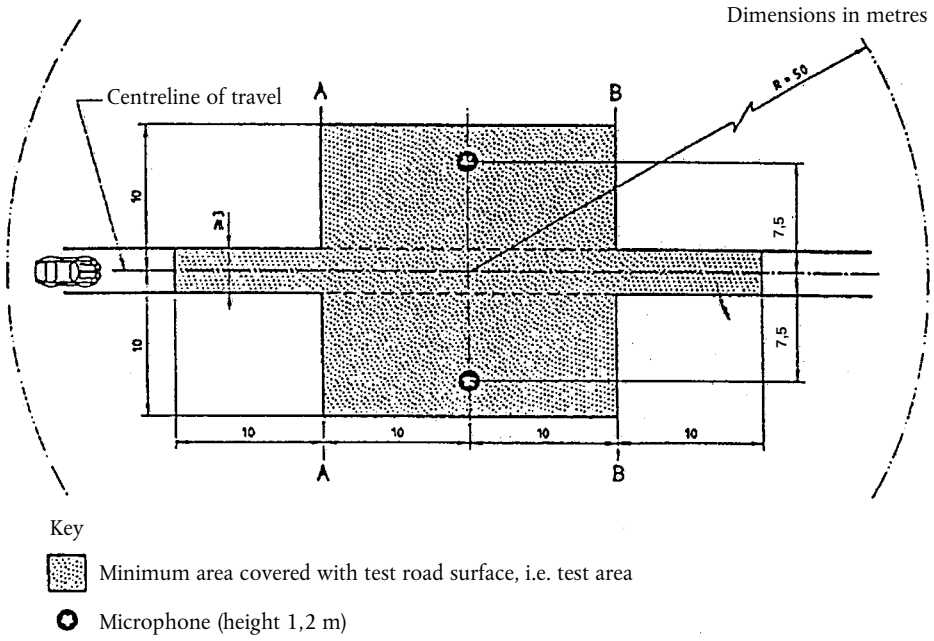
3. TEST SURFACE DESIGN

3.1. *Area*

When designing the test track layout it is important to ensure that, as a minimum requirement, the area traversed by the vehicles running through the test strip is covered with the specified test material with suitable margins for safe and practical driving. This will require that the width of the track is at least 3 m and the length of the track extends beyond lines AA and BB by at least 10 m at either end. Figure 1 shows a plan of a suitable test site and indicates the minimum area which shall be machine laid and machine compacted with the specified test surface material. According to Annex V, Appendix 1, point 3.2, measurements have to be made on each side of the vehicle. This can be made either by measuring with two microphone locations (one on each side of the track) and driving in one direction, or measuring with a microphone only on one side of the track but during the vehicle in two directions. If the latter method is used, then there are no surface requirements on that side of the track where there is no microphone.

Figure 1

Minimum requirements for test surface area



Note: There shall be no large acoustically reflective objects within this radius.

3.2. *Design and preparation of the surface*

3.2.1. Basic design requirements

The test surface shall meet four design requirements:

3.2.1.1. It shall be a dense asphaltic concrete.

3.2.1.2. The maximum chipping size shall be 8 mm (tolerances allow from 6,3 mm to 10 mm).

3.2.1.3. The thickness of the wearing course shall be ≥ 30 mm.

3.2.1.4. The binder shall be a straight penetration grade bitumen without modification.

3.2.2. Design guidelines

As a guide to the surface constructor, an aggregate grading curve which will give desired characteristics is shown in Figure 2. In addition, Table 1 gives some guidelines in order to obtain the desired texture and durability. The grading curve fits the following formula:

$$P\ (\%\ \text{passing}) = 100 \cdot (d/d_{max})^{1/2}$$

where:

d = square mesh sieve size, in mm,

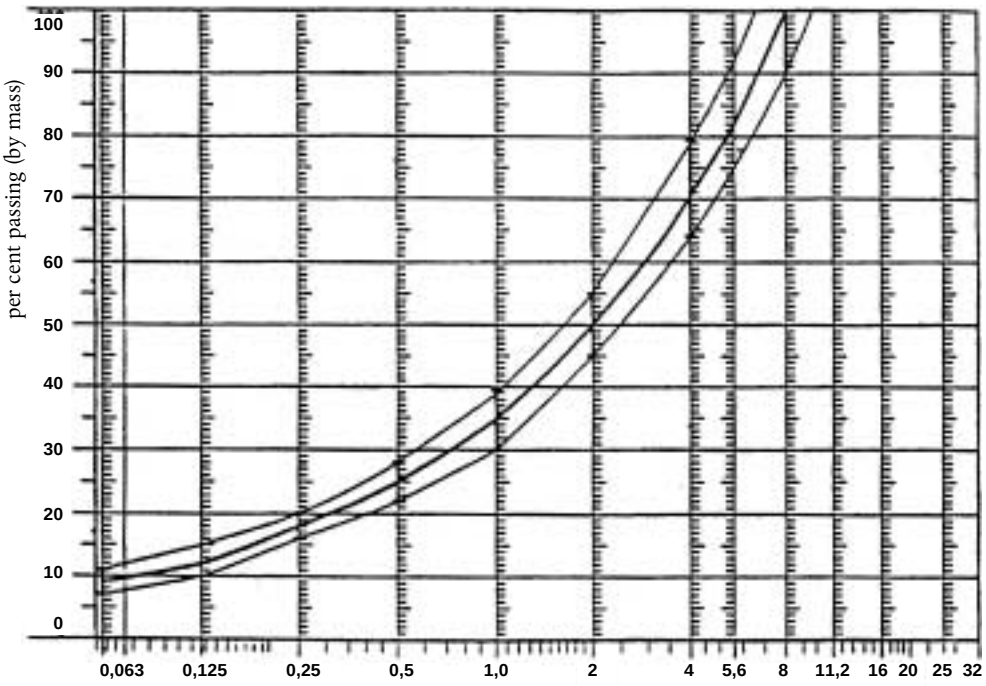
d_{max} = 8 mm for the mean curve,

= 10 mm for the lower tolerance curve,

= 6,3 mm for the upper tolerance curve,

Figure 2

Grading curve of the aggregate in the asphaltic mix with tolerances



In addition to the above, the following recommendations are made:

(a) The sand fraction (0,063 mm < square mesh sieve size < 2 mm) shall include no more than 55 % natural sand and at least 45 % rushed sand.

(b) The base and sub-base shall ensure a good stability and evenness, according to best road construction practice.

(c) The chippings shall be crushed (100 % crushed faces) and of a material with a high resistance to crushing.

(d) The chippings used in the mix shall be washed.

(e) No extra chippings shall be added onto the surface.

(f) The binder hardness expressed as PEN value shall be 40-60, 60-80 or even 80-100 depending on the climatic conditions of the country. The rule is that as hard a binder as possible shall be used, provided this is consistent with common practice.

(g) The temperature of the mix before rolling shall be chosen so as to achieve by subsequent rolling the required voids content. In order to increase the probability of satisfying the specifications of sections 2.1 to 2.4 above, the compactness shall be studied not only by an appropriate choice of mixing temperature, but also by an appropriate number of passings and by the choice of compacting vehicle.

Table 1

Design guidelines

	Target values		Tolerances
	By total mass of mix	By mass of the aggregate	
Mass of stones, square mesh sieve (SM) > 2 mm	47,6 %	50,5 %	± 5
Mass of sand 0,063 < SM < 2 mm	38,0 %	40,2 %	± 5
Mass of filler SM < 0,063 mm	8,8 %	9,3 %	± 2
Mass of binder (bitumen)	5,8 %	N.A.	± 0,5
Max. chipping size	8 mm		6,3 — 10
Binder hardness	(see point 3.2.2. (f))		
Polished stone value (PSV)	> 50		
Compactness, relative to Marshall compactness	98 %		

4. TEST METHOD

4.1. *Measurement of the residual voids content*

For the purpose of this measurement, cores have to be taken from the track in at least four different positions which are equally distributed in the test area between lines AA and BB (see figure 1). In order to avoid non-homogeneity and unevenness in the wheel tracks, cores should not be taken in wheel tracks themselves, but close to them. Two cores (minimum) should be taken close to the wheel tracks and one core (minimum) should be taken approximately midway between the wheel tracks and each microphone location.

If there is a suspicion that the condition of homogeneity is not met (see point 2.4), cores shall be taken from more locations within the test area.

The residual voids content has to be determined for each core, then the average value from all cores shall be calculated and compared with the requirement of point 2.1. In addition, no single core shall have a voids value which is higher than 10 %.

The test surface constructor is reminded of the problem which may arise when the test area is heated by pipes or electrical wires and cores must be taken from this area. Such installations must be carefully planned with respect to future core drilling locations. It is recommended to leave a few locations of size approximately 200 mm x 300 mm where there are no wires/pipes or where the latter are located deep enough in order not to be damaged by cores taken from the surface layer.

4.2. *Sound absorption coefficient*

The sound absorption coefficient (normal incidence) shall be measured by the impedance tube method using the procedure specified in ISO 10534-1: "Acoustics — Determination of sound absorption coefficient and impedance by a tube method" [2].

Regarding test specimens, the same requirements shall be followed as regarding the residual voids content (see section 4.1.). the sound absorption shall be measured in the range between 40 Hz and 800 Hz and in the range between 800 Hz and 1 600 Hz (at least at the centre frequencies of third octave bands) and the maximum values shall be identified for both of these frequency ranges. Then these values, for all test cores, shall be averaged to constitute the final result.

4.3. *Volumetric macrotexture measurement*

For the purpose of this standard, texture depth measurements shall be made on at least 10 positions evenly spaced along the wheel tracks of the test strip and the average value taken to compare with the specified minimum texture depth. See Standard ISO 10844:1994 for description of the procedure.

5. STABILITY IN TIME AND MAINTENANCE

5.1. *Age influence*

In common with any other surfaces, it is expected that the type-road noise level measured on the test surface may increase slightly during the first six to 12 months after construction.

The surface will achieve its required characteristics not earlier than four weeks after construction. The influence of age on the noise from trucks is generally less than that from cars.

Stability over time is determined mainly by polishing and compaction by vehicles during on the surface. It shall be periodically checked as stated in point 2.5.

5.2. *Maintenance of the surface*

Loose debris or dust which could significantly reduce the effective texture depth must be removed from the surface. In countries with winter climates, salt is sometimes used for de-icing. Salt may alter the surface temporarily or even permanently in such a way as to increase noise and is therefore not recommended.

5.3. *Repaving the test area*

If it is necessary to repave the test track, it is usually unnecessary to repave more than the test strip (of 3 m width in Figure 1) where vehicles are driving, provided the test area outside the strip met the requirement of residual voids content or sound absorption when it was measured.

6. DOCUMENTATION OF THE TEST SURFACE AND OF TESTS PERFORMED ON IT

6.1. *Documentation of the test surface*

The following data shall be given in a document describing the test surface:

6.1.1. The location of the test track.

6.1.2. Type of binder, binder hardness, type of aggregate, maximum theoretical density of the concrete (DR), thickness of the wearing course and grading curve determined from cores from the test track.

6.1.3. Method of compaction (e.g. type of roller, roller mass, number of passes).

6.1.4. Temperature of the mix, temperature of the ambient air and wind speed during laying of the surface.

6.1.5. Date when the surface was laid and contractor.

6.1.6. All or at least the latest test result, including:

6.1.6.1. the residual voids content of each core;

6.1.6.2. the location in the test area from where the cores for voids measurements have been taken;

6.1.6.3. the sound absorption coefficient of each core (if measured). Specify the results both for each core and each frequency range as well as the overall average;

6.1.6.4. the locations in the test area from where the cores for absorption measurements have been taken;

6.1.6.5. texture depth, including the number of tests and standard deviation;

6.1.6.6. the institution responsible for tests according to points 6.1.6.1 and 6.1.6.2 and the type of equipment used;

6.1.6.7. date of the test(s) and date when the cores were taken from the test track.

6.2. *Documentation of vehicle noise tests conducted on the surface*

In the document describing the vehicle noise test(s) it shall be stated whether all the requirements of this standard were fulfilled or not. Reference shall be made to a document according to point 6.1 describing the results which verify this.

([1]) ISO 10844:1994 If a different test surface is defined by ISO, in the future, the reference standard will be amended accordingly.

([2]) To be published.'

STATEMENT OF THE COUNCIL'S REASONS

I. INTRODUCTION

1. On 11 December 1997 the Commission sent the Council a proposal for a Directive of the European Parliament and of the Council, based on Article 95 of the EC Treaty, amending Council Directive 92/23/EEC relating to tyres for motor vehicles and their trailers and to their fitting [1].

2. The European Parliament delivered its first reading opinion on 18 February 1998 [2].

   The Economic and Social Committee delivered its opinion on 27 May 1998 [3].

3. On 13 April 2000, the Council adopted by unanimity its Common Position in accordance with Article 251 of the Treaty.

II. OBJECTIVE

4. The proposal aims to limit the noise generated by the contact between tyres in motion and road surfaces. Together with action already taken in order to curtail noise emissions from the mechanical parts of vehicles, the new measures proposed will help to reduce noise caused by road traffic, without thereby diminishing road safety and without disrupting the tyre market. The proposal is a follow up to the provisions of Article 4(2) of Directive 92/97/EEC [4] amending Directive 70/157/EEC relating to the permissible sound level and the exhaust system of motor vehicles [5].

III. ANALYSIS OF THE COMMON POSITION

5. The Council has been examining the proposal since 1998. The Common Position corresponds substantially with the Commission proposal. With the Commission's approval the Council introduced a number of technical amendments, and other revisions designed to improve the rigour of the noise testing procedure. The main changes to the Commission proposal are described below:

   Article 1

6. In the light of the climatic conditions in some Member States, which make it necessary to fit winter tyres with studs, the Council decided to amend the proposed definition of 'tyre' so as to exempt winter tyres with studs from the provisions (Article 1(2)).

7. The scope was clarified in order to indicate that the requirements set out in Annex V shall apply to tyres intended to be fitted to vehicles first used on or after 1 October 1980. It was also decided that very large tyres (nominal rim diameter 635 mm or more) should be exempted from the noise emission requirements set out in Annex V (Article 1(3)).

   Articles 4 (b) and Article 2

8. The transposition and application dates have been slightly modified to allow time for administrative and technical procedures to be completed.

   Article 3

9. To ensure continued improvements in the filed of tyre safety, the Council calls on the Commission to amend Directive 92/23/EEC in order to introduce grip tests for tyres (Article 3(1)).

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[1] OJ C 30, 28.1.1998, p. 8.
[2] OJ C 80, 16.3.1998, p. 90.
[3] OJ C 235, 27.7.1998, p. 24.
[4] OJ L 371, 19.12.1992, p. 1.
[5] OJ L 42, 23.2.1970, p. 16.

10. The Commission is also called on to submit further proposals for measures in the filed of motor vehicle regulations, so as to revise the provisions in Directive 92/23/EEC in a direction conducive to improved safety, environmental protection and energy saving (Article 3(2)).

Annex I

11. Recognising that not all type approval authorities in the Member States have the requisite testing facilities at present, the Council decided that until 31 December 2005, manufacturers' laboratories may be accepted as approved test laboratories pursuant to Article 14(1)(i) of Directive 70/156/EEC. From 1 January 2006, Article 14(1)(ii) of Directive 70/156/EEC will apply (Annex I, point 1.3).

12. The Council has also introduced amendments in which the technical provisions are made more precise and the specific competence of the type approval authority is defined more clearly.

Annex V

13. In order to improve further the test method for tyre-road sound levels, the Council introduced technical amendments that render the test specifications more precise and which thus provide for more reliable results (Appendix 1).

14. A new appendix was added laying out the information to be included in the test report (Appendix 2).

Annex VI

15. A new annex was added describing the physical characteristics and layout of the test track, based on ISO standards [1].

IV. **CONCLUSION**

16. In keeping with the above objective, the Council has endeavoured to endorse, clarify and strengthen the provisions, particularly with a view to maximising their rigour and technical precision, so as to reduce noise caused by road traffic.

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[1] ISO 10844:1994