

**SPECIFICATION
FOR
WORKING STANDARD WEIGHTS
AND
TEST WEIGHTS**

In accordance with the provisions of section 5(5) of the Weights and Measures Act 1985, the Secretary of State hereby approves the material and form of working standard weights and test weights conforming with this specification.

This specification supersedes NWML 7120 (October 1986).

**Dr S J Bennett
National Weights and Measures Laboratory
Stanton Avenue
Teddington
Middlesex
TW11 0JZ**

Department of Trade & Industry

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1 This specification is compatible with Directive 74/148/EEC and OIML International Recommendations 20, 25 and 47 insofar as they relate.

NOMINAL VALUES

2 Working standard weights and test weights shall have nominal values as set out in Tables 1 and 2.

MATERIAL

3 Working standard weights and test weights shall be made of metal of such quality that, under normal conditions of use, the change in mass of the weights is small in relation to the maximum permissible errors.

Stainless steel, bronze and brass, either plain or chrome-plated are suitable materials.

Larger weights may be made of steel or cast iron, suitably treated to prevent corrosion.

Smaller weights (below 100 mg) may be made of aluminium alloy.

FORM

4 Working standard weights and test weights shall have a smooth surface with no sharp corners.

Adjusting cavities are permitted, but there shall not be any cavities on the upper surfaces liable to accumulate dirt or hold water.

Circular and rectangular shapes are suitable, with lifting handles or knobs.

Smaller weights (below 1 g) shall be of strip or wire in appropriate geometrical shapes.

MARKING

5 Weights of 1 g and above shall be marked with their denomination. They may also be marked with the maker's name, the name of the owning authority and other information in a manner which is not likely to affect accuracy.

TESTING

6 Working standard weights and test weights shall be tested in accordance with regulations made under section 5(9) of the Weights and Measures Act 1985 using equipment which has a discrimination threshold and repeatability which do not exceed one-fifth of the limit of error of the weight being tested.

LIMITS OF ERROR

7 The maximum permissible limits of error shall not exceed the amounts prescribed by regulation under section 5(9) of the Weights and Measures Act 1985, as shown in Tables 1 and 2. Weights may be adjusted to higher degrees of accuracy if desired.

TABLE 1

METRIC WEIGHTS - NOMINAL VALUE		MAXIMUM PERMISSIBLE LIMITS OF ERROR
WORKING STANDARD WEIGHTS	TEST WEIGHTS	
	5000 kg	500 g
	2000 kg	200 g
	1000 kg	100 g
	500 kg	50 g
	250 kg	20 g
	200 kg	20 g
	100 kg	10 g
	50 kg	5 g
	20 kg	1 g
20 kg	10 kg	500 mg
10 kg	5 kg	250 mg
5 kg		100 mg
2 kg		50 mg
1 kg		25 mg
500 g		10 mg
200 g		5 mg
100 g		3.0 mg
50 g		2.5 mg
20 g		2.2 mg
15 g		2.0 mg
10 g		1.5 mg
5 or 4 g		1.2 mg
3 or 2 g		1.0 mg
1 g		0.8 mg
500, 400 or 300 mg		0.6 mg
200 or 150 mg		0.5 mg
100 mg		0.4 mg
50 mg		0.3 mg
20 mg		0.25 mg
10 mg		0.20 mg
5, 2 or 1 mg		

TABLE 2

IMPERIAL WEIGHTS - NOMINAL VALUE		MAXIMUM PERMISSIBLE LIMITS OF ERROR
WORKING STANDARD WEIGHTS	TEST WEIGHTS	
	11200 lb	500 g
	4480 lb	200 g
	2240 lb	100 g
	1120 or 1008 lb	50 g
	560 or 448 lb	20 g
	224 lb	10 g
	112 lb	5 g
56 lb	56 lb	1.25 g
50 lb	50 lb	1.1 g
28 lb	28 lb	650 mg
20 lb	20 lb	450 mg
14 lb	14 lb	320 mg
10 lb		220 mg
7 lb		160 mg
5 lb		110 mg
4 lb		90 mg
2 lb		45 mg
1 lb		20 mg
8 oz		10 mg
4 oz		6 mg
2 oz		3 mg
1 oz		2.5 mg
1/2 oz		2.0 mg
1/4 oz or 1/8 oz		1.5 mg
1/16 oz		1.2 mg
1/32 oz		1.0 mg