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AMENDMENT 1
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**Jewellery — Colours of gold alloys
— Definition, range of colours and
designation**

AMENDMENT 1

*Joaillerie, bijouterie — Couleurs des alliages d'or — Définition,
gamme de couleurs et désignation*

AMENDEMENT 1

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This document was prepared by Technical Committee ISO/TC 174, *Jewellery and precious metals*.

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Jewellery — Colours of gold alloys — Definition, range of colours and designation

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5.2.2.1

Add the following new paragraph:

"This document describes the colour measurement of gold alloy coatings with a 2° standard observer. Annex B shall be given for the colour measurement with a 10° standard observer which is also widely used in the industry."

After Annex A

Add the following new Annex B:

Annex B (normative)

Colour measurement with a standard 10° observer

B.1 General

This annex describes the spectrophotometer setup and the nominal values for the colour measurement with a 10° standard observer.

When a 10° standard observer is used, it shall be specified with a clear reference to the present document.

B.2 Spectrophotometer setup and colour measurement

The colour measurement shall be done according to Clause 5, except for the setup of the apparatus (5.2.2.3) that shall be done with the following parameter:

- 10° standard observer.

B.3 Gold alloy colours using a 10° standard observer

Colour nominal values and tolerances are given in [Tables B.1](#), [B.2](#) and [B.3](#) in accordance with 5.2. and B.2. [Figures B.1](#), [B.2](#), [B.3](#), and [B.4](#) illustrate graphically nominal and tolerance values.

Table B.1 — Nominal values and tolerances for xyY using a 10° standard observer

Colour	Chromaticity coordinates					
	Nominal values			Tolerances		
	x	y	Y	x	y	Y (max/min)
0N	0,3497	0,3715	83,1	0,3549	0,3734	86,8
				0,3479	0,3662	
				0,3448	0,3693	79,3
				0,3511	0,3771	
1N	0,3564	0,3705	79,9	0,3607	0,3719	83,6
				0,3543	0,3663	
				0,3522	0,3688	76,2
				0,3583	0,3748	
2N	0,3647	0,3760	76,7	0,3688	0,3771	80,4
				0,3628	0,3721	
				0,3607	0,3748	72,9
				0,3664	0,3801	
3N	0,3649	0,3706	74,4	0,3696	0,3719	78,1
				0,3622	0,3665	
				0,3604	0,3691	70,7
				0,3675	0,3749	
4N	0,3641	0,3648	72,4	0,3685	0,3656	76,1
				0,3614	0,3611	
				0,3598	0,3637	68,7
				0,3667	0,3686	
5N	0,3625	0,3587	69,9	0,3666	0,3592	73,6
				0,3597	0,3556	
				0,3585	0,3581	66,2
				0,3651	0,3621	
6N	0,3595	0,3525	67,6	0,3636	0,3528	71,3
				0,3565	0,3497	
				0,3556	0,3520	63,9
				0,3624	0,3555	

Table B.2 — Nominal values and tolerances for $L^*a^*b^*$ using a 10° standard observer

Colour	Chromaticity coordinates					
	Nominal values			Tolerances		
	L^*	a^*	b^*	L^* (max/min)	a^*	b^*
0N	93,0	-1,14	21,15	94,6	0,38	22,82
					0,32	18,94
				91,4	-2,41	19,40
					-2,85	23,36

NOTE Tolerances on a^* and b^* are converted from xyY using the nominal value of Y.

Table B.2 (continued)

Colour	Chromaticity coordinates					
	Nominal values			Tolerances		
	L^*	a^*	b^*	L^* (max/min)	a^*	b^*
1N	91,6	2,27	21,84	93,3	3,54 3,10	23,20 19,98
				89,9	1,13 1,29	20,44 23,72
2N	90,2	3,47	25,10	91,9	4,74 4,29	26,31 23,37
				88,4	2,30 2,54	23,86 26,85
3N	89,1	5,74	23,05	90,8	7,16 6,32	24,43 21,09
				87,3	4,45 5,04	21,63 25,04
4N	88,1	7,78	20,71	89,9	9,25 8,16	21,86 18,93
				86,3	6,42 7,26	19,51 22,52
5N	87,0	9,51	18,11	88,8	11,01 9,72	19,05 16,52
				85,1	8,12 9,19	17,12 19,74
6N	85,8	10,82	15,27	87,7	12,38 10,76	16,12 13,77
				83,9	9,35 10,75	14,37 16,82

NOTE Tolerances on a^* and b^* are converted from xyY using the nominal value of Y.

Table B.3 — Nominal values and tolerances for L^*C^*h using a 10° standard observer

Colour	Chromaticity coordinates					
	Nominal values			Tolerances		
	L^*	C^*	h (deg)	L^* (max/min)	C^*	h (deg)
0N	93,0	21,18	93,10	94,6	22,83 18,94	89,06 89,03
				91,4	19,55 23,53	97,09 96,95
1N	91,6	21,96	84,08	93,3	23,47 20,22	81,33 81,17
				89,9	20,47 23,75	86,83 86,89

NOTE Tolerances on C^* and h are converted from xyY using the nominal value of Y.

Table B.3 (continued)

Colour	Chromaticity coordinates					
	Nominal values			Tolerances		
	L^*	C^*	h (deg)	L^* (max/min)	C^*	h (deg)
2N	90,2	25,34	82,13	91,9	26,74 23,76	79,78 79,60
				88,4	23,97 26,97	84,50 84,59
3N	89,1	23,76	76,01	90,8	25,46 22,02	73,66 73,33
				87,3	22,08 25,54	78,38 78,62
4N	88,1	22,12	69,42	89,9	23,73 20,61	67,07 66,67
				86,3	20,54 23,66	71,80 72,12
5N	87,0	20,46	62,29	88,8	22,00 19,16	59,97 59,53
				85,1	18,95 21,78	64,64 65,03
6N	85,8	18,71	54,70	87,7	20,32 17,47	52,47 51,99
				83,9	17,15 19,96	56,97 57,43

NOTE Tolerances on C^* and h are converted from xyY using the nominal value of Y.

NOTE Tolerances on C^* and h are converted from xyY using the nominal value of Y.

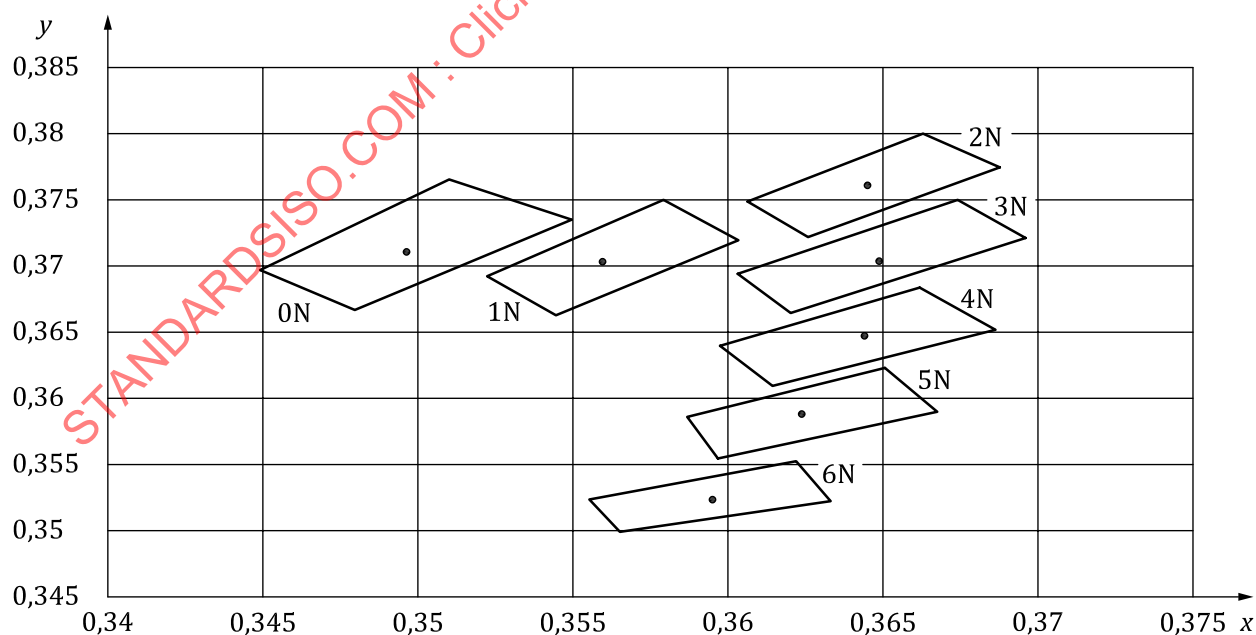


Figure B.1 — xy tolerances according to Table B.1 using a 10° standard observer

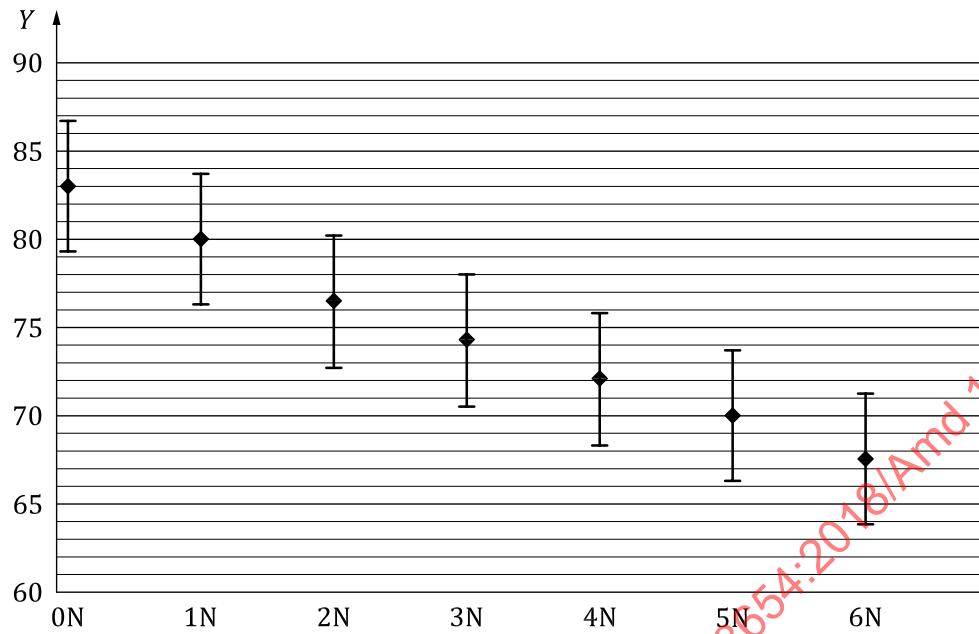


Figure B.2 — Y tolerances according to [Table B.1](#) using a 10° standard observer

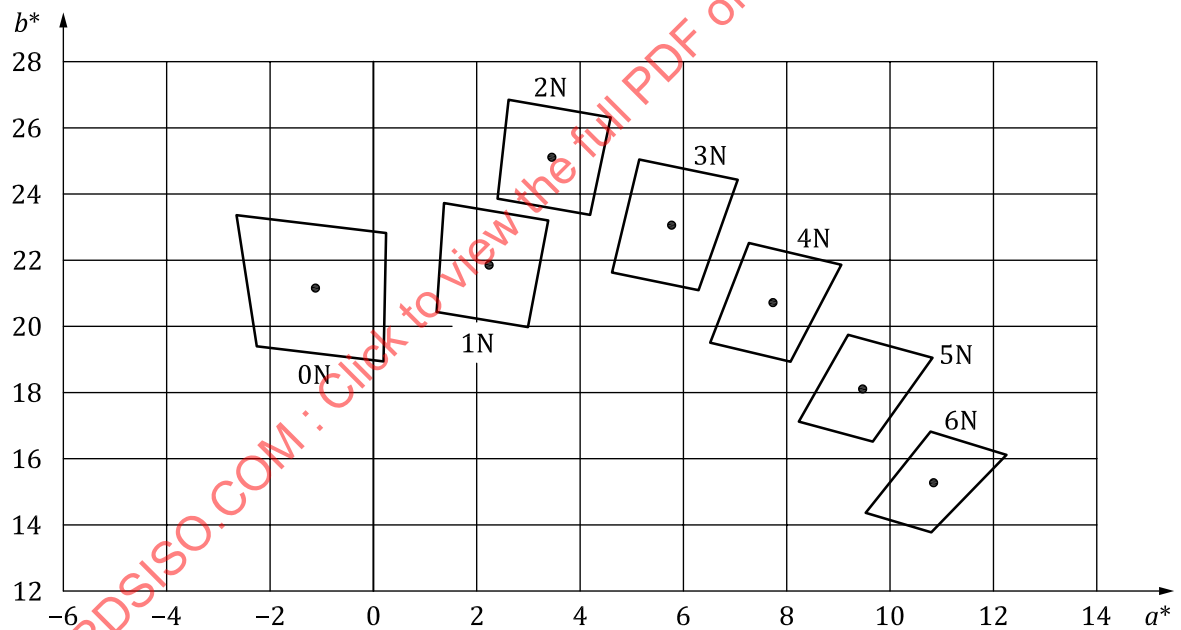


Figure B.3 — a^*b^* tolerances according to [Table B.2](#) using a 10° standard observer