

**SLOVENSKI STANDARD  
SIST EN ISO 8654:2018/oprA1:2019  
01-julij-2019**

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**Nakit - Barve zlatih zlitin - Definicija, barvni odtenki in označevanje - Dopolnilo A1  
(ISO 8654:2018/DAM 1:2019)**

Jewellery - Colours of gold alloys - Definition, range of colours and designation -  
Amendment 1 (ISO 8654:2018/DAM 1:2019)

Schmuck - Farben von Goldlegierungen - Bezeichnung, Farbenreihe und  
Kennzeichnung - Änderung 1 (ISO 8654:2018/DAM 1:2019)

Joaillerie, bijouterie - Couleurs des alliages d'or - Définition, gamme de couleurs et  
désignation - Amendement 1 (ISO 8654:2018/DAM 1:2019)

**Ta slovenski standard je istoveten z: EN ISO 8654:2018/prA1**

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**ICS:**

39.060      Nakit      Jewellery

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# DRAFT AMENDMENT ISO 8654:2018/DAM 1

ISO/TC 174

Secretariat: DIN

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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*

ICS: 39.060

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

This document amends the first version (ISO 8654:2018) with the following additions:

- Add 10° standard observer nominal values and tolerances

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## ISO 8654:2018/DAM 1:2019(E)

### Introduction

*Add the following to the introduction*

The ISO 8654:2018 standard is designed with a 2° standard observer and any reference to the ISO 8654:2018 means implicitly a 2° standard observer.

This amendment proposes a normative Annex for the colour measurement with a 10° standard observer which is also widely used in the industry.

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

## AMENDMENT 1

*Add the following annex*

### 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 amendment ISO 8654:2018/Amd.1:2019.

##### B.2 Spectrophotometer setup and colour measurement

The colour measurement shall be done according to chapter 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	

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Table B.1 (continued)

Colour	Chromaticity coordinates					
	Nominal values			Tolerances		
x	y	Y	x	y	Y (max/min)	
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 <a href="https://standardsite.hai/catalyst/iso/8654-2018/oprA1:2019">https://standardsite.hai/catalyst/iso/8654-2018/oprA1:2019</a>	21,15	94,6	0,38	22,82
				91,4	0,32	18,94
			21,84	93,3	-2,41	19,40
				89,9	-2,85	23,36
1N	91,6	2,27	21,84	93,3	3,54	23,20
				89,9	3,10	19,98
			25,10	1,13	1,13	20,44
				1,29	1,29	23,72
2N	90,2	3,47	25,10	91,9	4,74	26,31
				88,4	4,29	23,37
			23,05	2,30	2,30	23,86
				2,54	2,54	26,85
3N	89,1	5,74	23,05	90,8	7,16	24,43
				87,3	6,32	21,09
			20,71	4,45	4,45	21,63
				5,04	5,04	25,04
4N	88,1	7,78	20,71	89,9	9,25	21,86
				86,3	8,16	18,93
				6,42	6,42	19,51
				7,26	7,26	22,52

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			L* (max/min)	Tolerances				
	L*	a*	b*		a*	b*			
5N	87,0	9,51	18,11	88,8	11,01	19,05			
				85,1	9,72	16,52			
	85,8	10,82	15,27	87,7	8,12	17,12			
				83,9	9,19	19,74			
					12,38	16,12			
6N					10,76	13,77			
					9,35	14,37			
					10,75	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			L* (max/min)	Tolerances		
	L*	C*	h (deg)		C*	h (deg)	
0N	93,0	21,18	93,10 94,6 91,4	94,6	22,83	89,06	
				93,10	18,94	89,03	
	91,6	21,96		91,4	19,55	97,09	
					23,53	96,95	
1N					23,47	81,33	
89,1	23,76	84,08 93,3 89,9	93,3	20,22	81,17		
				20,47	86,83		
				23,75	86,89		
2N	90,2	25,34	82,13 91,9 88,4	91,9	26,74	79,78	
					23,76	79,60	
	88,1	22,12		88,4	23,97	84,50	
					26,97	84,59	
3N	87,0	20,46	76,01 90,8 87,3	90,8	25,46	73,66	
					22,02	73,33	
	86,3	21,96		87,3	22,08	78,38	
					25,54	78,62	
4N	85,1	22,12	69,42 89,9 86,3	89,9	23,73	67,07	
					20,61	66,67	
	84,0	21,96		86,3	20,54	71,80	
					23,66	72,12	
5N	83,9	21,96	62,29 88,8 85,1	88,8	22,00	59,97	
					19,16	59,53	
	82,7	21,96		85,1	18,95	64,64	
					21,78	65,03	

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