

SVENSK STANDARD

SS-ISO 22324:2017



Fastställt/Approved: 2017-11-02

Publicerad/Published: 2017-11-13

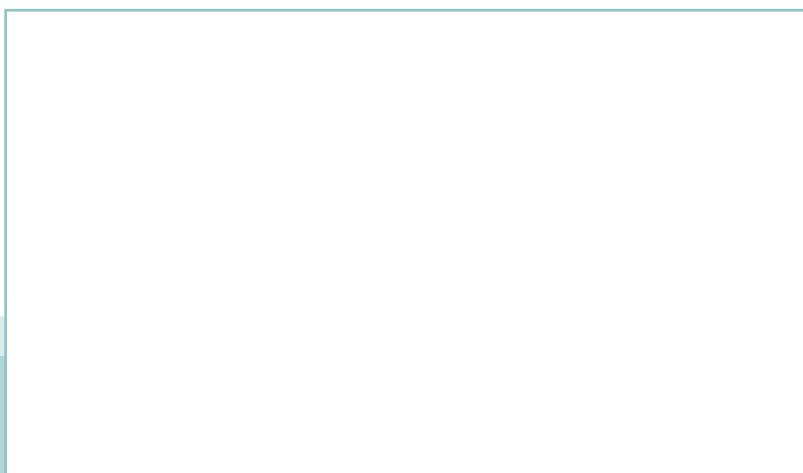
Utgåva/Edition: 1

Språk/Language: engelska/English

ICS: 01.070; 03.100.01; 04.140

Samhällssäkerhet – Krishantering – Vägledning för färgkoder vid varning (ISO 22324:2015, IDT)

Societal security – Emergency management – Guidelines for colour coded alerts (ISO 22324:2015, IDT)



Standarder får världen att fungera

SIS (Swedish Standards Institute) är en fristående ideell förening med medlemmar från både privat och offentlig sektor. Vi är en del av det europeiska och globala nätverk som utarbetar internationella standarder. Standarder är dokumenterad kunskap utvecklad av framstående aktörer inom industri, näringsliv och samhälle och befrämjar handel över gränser, bidrar till att processer och produkter blir säkrare samt effektiviserar din verksamhet.

Delta och påverka

Som medlem i SIS har du möjlighet att påverka framtida standarder inom ditt område på nationell, europeisk och global nivå. Du får samtidigt tillgång till tidig information om utvecklingen inom din bransch.

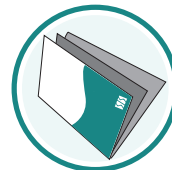
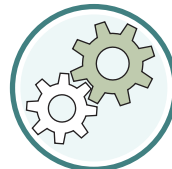
Ta del av det färdiga arbetet

Vi erbjuder våra kunder allt som rör standarder och deras tillämpning. Hos oss kan du köpa alla publikationer du behöver – allt från enskilda standarder, tekniska rapporter och standardpaket till handböcker och onlinetjänster. Genom vår webbtjänst e-nav får du tillgång till ett lättnavigerat bibliotek där alla standarder som är aktuella för ditt företag finns tillgängliga. Standarder och handböcker är källor till kunskap. Vi säljer dem.

Utveckla din kompetens och lyckas bättre i ditt arbete

Hos SIS kan du gå öppna eller företagsinterna utbildningar kring innehåll och tillämpning av standarder. Genom vår närhet till den internationella utvecklingen och ISO får du rätt kunskap i rätt tid, direkt från källan. Med vår kunskap om standarders möjligheter hjälper vi våra kunder att skapa verklig nytta och lönsamhet i sina verksamheter.

Vill du veta mer om SIS eller hur standarder kan effektivisera din verksamhet är du välkommen in på www.sis.se eller ta kontakt med oss på tel 08-555 523 00.



Standards make the world go round

SIS (Swedish Standards Institute) is an independent non-profit organisation with members from both the private and public sectors. We are part of the European and global network that draws up international standards. Standards consist of documented knowledge developed by prominent actors within the industry, business world and society. They promote cross-border trade, they help to make processes and products safer and they streamline your organisation.

Take part and have influence

As a member of SIS you will have the possibility to participate in standardization activities on national, European and global level. The membership in SIS will give you the opportunity to influence future standards and gain access to early stage information about developments within your field.

Get to know the finished work

We offer our customers everything in connection with standards and their application. You can purchase all the publications you need from us - everything from individual standards, technical reports and standard packages through to manuals and online services. Our web service e-nav gives you access to an easy-to-navigate library where all standards that are relevant to your company are available. Standards and manuals are sources of knowledge. We sell them.

Increase understanding and improve perception

With SIS you can undergo either shared or in-house training in the content and application of standards. Thanks to our proximity to international development and ISO you receive the right knowledge at the right time, direct from the source. With our knowledge about the potential of standards, we assist our customers in creating tangible benefit and profitability in their organisations.

If you want to know more about SIS, or how standards can streamline your organisation, please visit www.sis.se or contact us on phone +46 (0)8-555 523 00



Den internationella standarden ISO 22324:2017 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 22324:2017.

The International Standard ISO 22324:2017 has the status of a Swedish Standard. This document contains the official version of ISO 22324:2017.

© Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

© Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Samhällssäkerhet, SIS/TK 494.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Guidance for use of colour codes	2
4.1 General	2
4.2 Colour codes to express the status of hazard	2
4.2.1 General	2
4.2.2 Typical colours for colour-coding system	2
4.2.3 Order and position for the red, yellow and green spectrum	3
4.3 Colour codes to give supplementary information	3
4.3.1 General	3
4.3.2 Black and purple	4
4.3.3 Blue	4
4.3.4 Grey	4
4.4 Consideration for human factors and colour blindness	4
4.4.1 General	4
4.4.2 Colour names	5
4.4.3 Text colours	5
Annex A (informative) Examples on the use of colour codes in practice	6
Annex B (informative) Recommendations for colour selection	9
Bibliography	11

SS-ISO 22324:2017 (E)**Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 292, *Security*.

Introduction

People may be faced in their daily lives with various kinds of risks. People at risk should be able to take appropriate safety actions when faced with hazards even though they may not have a full understanding of them.

Public warnings, through a combination of prior notifications and alerts, enable people at risk to take appropriate and timely actions to protect their safety.

Colour-coded alerts are used to notify people at risk of status changes on a safety or danger continuum in allowing them to take appropriate actions.

This International Standard will lead to better understanding of colour-coded alerts by reducing confusion and prompting more appropriate responses in an emergency situation.

Societal security — Emergency management — Guidelines for colour-coded alerts

1 Scope

This International Standard provides guidelines for the use of colour codes to inform people at risk as well as first response personnel about danger and to express the severity of a situation. It is applicable to all types of hazard in any location.

This International Standard does not cover the method for displaying colour codes, detailed ergonomic considerations related with viewing displays, or safety signs covered by ISO 3864-1.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3864-1, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings*

ISO 22322, *Societal security — Emergency management — Guidelines for public warning*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 22300 and the following apply.

NOTE All terms and definitions contained in ISO 22300 are available on the ISO Online Browsing Platform: www.iso.org/obp.

3.1

alert

part of public warning that captures attention of first responders and people at risk in a developing emergency situation

[SOURCE: ISO 22322, definition 3.1]

3.2

colour blindness

total or partial inability to differentiate certain hues

[SOURCE: ISO 5492:2008, definition 2.34]

3.3

colour-code

set of colours used symbolically to represent particular meanings

[SOURCE: ISO 17724:2003, definition 11]

3.4

hue

attribute of a visual sensation according to which an area appears to be similar to one of the perceived colours, red, yellow, green, and blue, or to a combination of two of them

[SOURCE: ISO/IEC 8632-1:1999, definition 4.1.61]

SS-ISO 22324:2017 (E)

4 Guidance for use of colour codes

4.1 General

Red, yellow and green (and the spectrum in between in terms of hue) should be used to express the status of a hazard. Black, purple, blue and grey should be used to give supplementary information about the hazard.

4.2 Colour codes to express the status of hazard

4.2.1 General

Red is associated with danger and should be used to notify people at risk to take appropriate safety actions immediately.

Yellow is associated with caution and should be used to notify people at risk to prepare to take appropriate safety actions.

Green is associated with a safe status and should be used to notify people at risk that no action is required.

This International Standard does not define danger, caution or safety other than the suggested meaning given in [Table 1](#).

Experts should classify the status of hazard into danger, caution or safe.

Table 1 — Colour codes

Colour	Associated meaning	Proposed action
Red	Danger	Take appropriate safety action immediately
Yellow	Caution	Prepare to take appropriate safety action
Green	Safe	No action required

4.2.2 Typical colours for colour-coding system

If more than three colours are needed to express the level of hazard, the colours and supporting information should be based on the following:

- the number of level of hazard should be minimized in order to limit the number of colours being used;
- hues between the red and green spectrum should be chosen;
- no more than seven colours should be used to avoid confusion;
- supporting information, which is understandable by users, should be added, including:
 - supplemental information (e.g. text, numbers, shape, symbol, size);
 - positional coding.

[Figure 1](#) illustrates the different colours which can be used in colour code systems.

The colours in [Figure 1](#) are indicative and should not be used for colour matching.

[Annex B](#) gives recommendations on colour specifications based on Munsell, CMYK, and RGB systems.

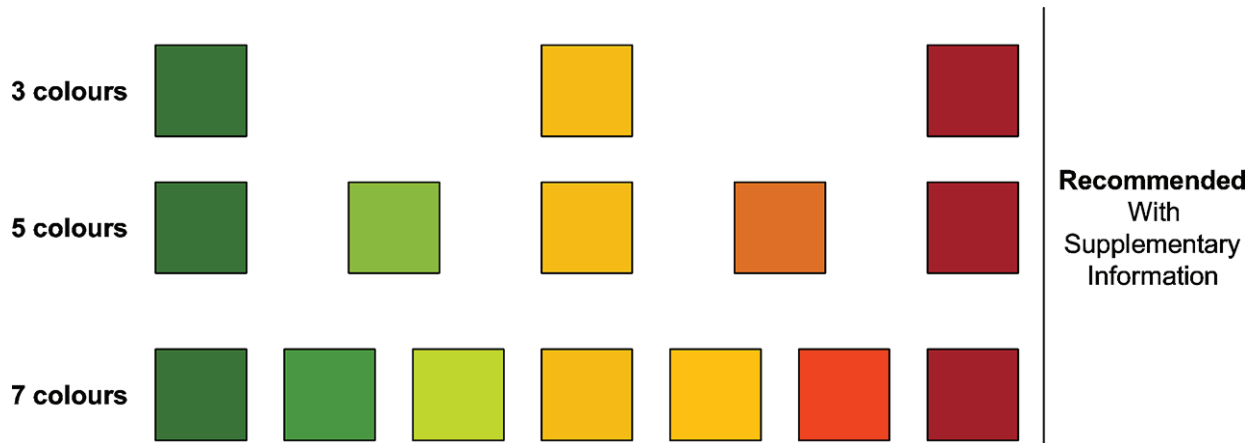


Figure 1 — Guideline for use of basic colours

4.2.3 Order and position for the red, yellow and green spectrum

The order of colours can provide positional cues so that people can easily recognize the meaning of the alert.

There are several ways to show and use the spectrum of red, yellow and green (see [Figure 2](#)). However, these colours should always be placed in a certain order where the increasing level of hazard is presented:

- from left to right, or
- from bottom to top.

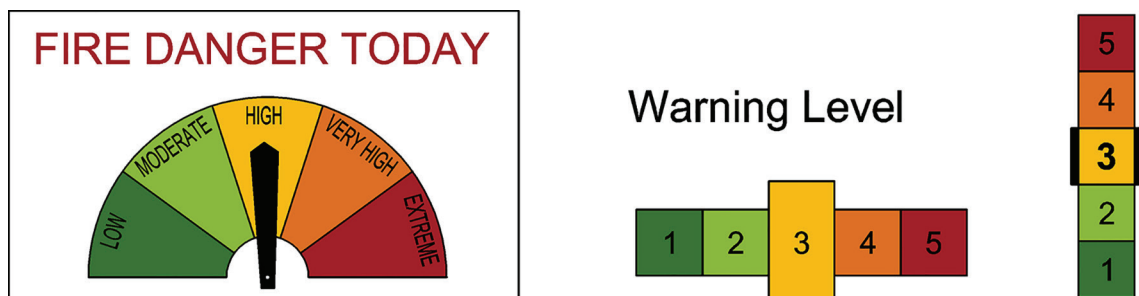


Figure 2 — Example of the order and position of colour-coding

4.3 Colour codes to give supplementary information

4.3.1 General

In addition to the red, yellow, green spectrum, black, purple, blue and grey may be used to provide additional information.

[Annex B](#) gives recommendations on colour specifications based on Munsell, CMYK, and RGB systems.