

Colors That Start With X

Verified source contexts, exact digital previews, and resolutions for the original list

Research edition · October 16, 2026

X color names occur in several different kinds of reference. Some are paint names, some belong to a computer color database, and some are ordinary descriptive words. A shared initial does not give them a shared standard.

This edition contains 18 source-specific digital records representing 16 names when capitalization is ignored. It also explains the dictionary terms Xanthic and Xanthous, records one historical name without inventing a hex, and resolves every row in the supplied five-color list.

The core list includes 14 primary-source digital previews or database identities and four version-qualified brand-guide records. Three public-list or supplied illustrations are shown separately. None of the 18 core records is an X-initial CSS named keyword. [11–19]

A name needs a source

Different contexts can share a name and still publish different previews.



Xanadu / public list
Face Media Group; qualified illustration
#738678



Xanadu / Resene
G62-025-136; maker preview
#75876E



Xoxo / Behr
P110-7; Purple family here
#91507B



XOXO / Resene
V67-072-354; Pink family here
#D88BA9



Xenon Blue / Cotton TCX
14-3949 TCX; owner web simulation
#B7C0D7



Xenon Blue / Paper TPG
14-3949 TPG; owner web simulation
#BBC3D7

Sources: [1,5–9,22]. Original diagram; screen previews are not physical standards.

Start with the named source. Read the shade family as an editorial aid, and keep evidence qualifiers attached to every value.

Words, names and history

Xanthic

In its color sense, xanthic describes something yellow-related or tinted yellow. Merriam-Webster also records a separate chemical sense. The word does not identify one particular RGB triplet. The supplied #EEED09 is a vivid yellow illustration attested in Face Media Group's web list; it is not a dictionary-defined color code. [20,22]

Xanthous

Xanthous can describe yellow coloration. Merriam-Webster also records a hair-color sense spanning yellowish, red, auburn and brown hair. The supplied #F1B42F looks golden yellow to yellow-orange, so this edition retains Yellow with that boundary note. The dictionary supports the word's meaning, not that exact hex. [21,26]

Xanthine Orange

NBS SP 440 assigns Xanthine Orange, attributed to source R (Ridgway), to ISCC-NBS category 51, deep orange. The row is on printed page 155, PDF page 191. It is a historical category assignment. Neither the name nor the category establishes a unique sRGB value, so the entry has no invented digital swatch. [23]

Xanadu

The current checked Resene preview is #75876E. The supplied #738678 is also attested in a commercial web list. These are distinct numerical contexts, both visibly muted gray-greens. The inspected evidence does not establish the claim that the color was named after a particular plant. That origin claim is omitted. [5,22]

A historical name can be valid even when no digital swatch is justified. This edition keeps that distinction visible.

How to read the list

Identity before appearance

A usable record carries the source, exact name, code or system, value and date. Matching names are not automatically matching colors. Behr Xoxo and Resene XOXO illustrate this directly. Pantone TCX and TPG remain separate substrate systems. [1,5-9]

What the numbers mean

A six-digit hex value expresses the same three 8-bit channel values as RGB. For example, #107C10 corresponds to (16,124,16). Converting between these notations is exact arithmetic. It does not convert a digital preview into a paint formula or a measured physical match.

How families were assigned

All 18 core patches and all five supplied patches were visually reviewed against a neutral surround. Family labels describe the encoded previews. The source's marketing family remains in the structured data when available. An identical RGB receives the same family in this edition, and exact matches to earlier M and P entries retain their earlier labels.

Boundary decisions

Muted gray-greens stay in Green when the green appearance remains apparent; this applies to both Xanadu contexts. Earthy olive-brown Xena and golden-tan Xirapha fall in Brown. X11 maroon is deep rose in Pink. These are explicit editorial decisions, not universal color-science boundaries.

Limits of a screen swatch

Paint previews and Pantone simulations help readers recognize a record; they do not reproduce surface texture, gloss, fluorescent effects, illumination or every physical color. No CMYK, Pantone match or paint recipe is inferred from a hex value. [5-9,14]

The family vocabulary

Black, Blue, Brown, Gray, Green, Orange, Pink, Purple, Red, Violet, White, Yellow.

Eight families have core records. Black, Violet, White and Yellow have no core record in this bounded inventory; Yellow appears in the separately qualified word illustrations.

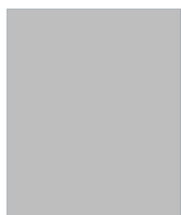
Quick reference / 18 records

Source and system are part of each identity. The four Xbox/Xiaomi rows are version-qualified brand-guide records; all others use primary-source previews or X.Org definitions.

Name / source	Code or context	Hex / RGB	Family
x11 gray / X.Org X11	rgb 1.1.1	#BEBEBE / 190, 190, 190	Gray
x11 green / X.Org X11	rgb 1.1.1	#00FF00 / 0, 255, 0	Green
x11 maroon / X.Org X11	rgb 1.1.1	#B03060 / 176, 48, 96	Pink
x11 purple / X.Org X11	rgb 1.1.1	#A020F0 / 160, 32, 240	Purple
Xanadu / Resene	G62-025-136	#75876E / 117, 135, 110	Green
Xavier Blue / PPG	PPG1240-4	#6AB4E0 / 106, 180, 224	Blue
Xbox dark green / Xbox	2019 guide, p. 15	#054B16 / 5, 75, 22	Green
Xbox green / Xbox	2019 guide, p. 15	#107C10 / 16, 124, 16	Green
Xbox light green / Xbox	2019 guide, p. 15	#9BF00B / 155, 240, 11	Green
Xena / Dulux Australia	S17D7	#847C54 / 132, 124, 84	Brown
Xenon Blue / Pantone TCX	14-3949 TCX	#B7C0D7 / 183, 192, 215	Blue
Xenon Blue / Pantone TPG	14-3949 TPG	#BBC3D7 / 187, 195, 215	Blue
X Factor / Resene	R37-091-022	#681B2B / 104, 27, 43	Red
Xiaomi Orange / Xiaomi	Visual Identity, PDF p. 14	#FF6900 / 255, 105, 0	Orange
Xirapha / Nerolac	4027	#E4B774 / 228, 183, 116	Brown
Xotic / Resene	R44-092-028	#863336 / 134, 51, 54	Red
Xoxo / Behr	P110-7	#91507B / 145, 80, 123	Purple
XOXO / Resene	V67-072-354	#D88BA9 / 216, 139, 169	Pink

Six additional X.Org spellings are aliases, not additional colors. Sort order ignores spaces and punctuation. All 18 main records have different RGB values.

Catalog / 1-3



X001 x11 gray

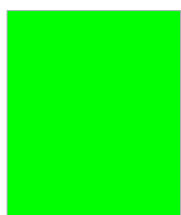
X.Org X11 · rgb 1.1.1

#BEBEBE | RGB 190, 190, 190 | Gray

Medium-light neutral gray. One source identity with four case/spacing/spelling forms. The X11 value differs from CSS gray (#808080).

primary issuer; checked 2026-10-15. Additional spellings: X11Gray, x11 grey, X11Grey.

[Open exact source \[11\]](#)



X002 x11 green

X.Org X11 · rgb 1.1.1

#00FF00 | RGB 0, 255, 0 | Green

Bright, highly saturated green. The X.Org release includes this explicit X11-prefixed name. CSS green is #008000; this value equals CSS lime.

primary issuer; checked 2026-10-15. Additional spellings: X11Green.

[Open exact source \[11\]](#)



X003 x11 maroon

X.Org X11 · rgb 1.1.1

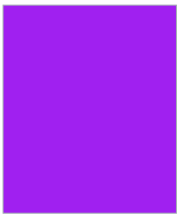
#B03060 | RGB 176, 48, 96 | Pink

Deep rose with a strong red component. Classified Pink, matching the M edition for the identical RGB. Its source name is retained; CSS maroon is #800000.

primary issuer; checked 2026-10-15. Additional spellings: X11Maroon.

[Open exact source \[11\]](#)

Catalog / 4-6



X004 x11 purple

X.Org X11 · rgb 1.1.1

#A020F0 | RGB 160, 32, 240 | Purple

Intense purple with a blue-violet tendency. Classified Purple, matching the P edition for the identical RGB. CSS purple is #800080.

primary issuer; checked 2026-10-15. Additional spellings: X11Purple.

[Open exact source \[11\]](#)



X005 Xanadu

Resene · G62-025-136

#75876E | RGB 117, 135, 110 | Green

Muted, earthy gray-green. This maker preview is #75876E. Keep the public-list #738678 in its own context. The checked maker entry does not establish a plant-derived naming origin.

primary issuer; checked 2026-10-16. Source approximate LRV: 30.

[Open exact source \[5\]](#)



X006 Xavier Blue

PPG · PPG1240-4

#6AB4E0 | RGB 106, 180, 224 | Blue

Clear medium-light sky blue. Exact RGB appears on the PPG product page. Hex is the equivalent notation calculated from those channels.

primary issuer; checked 2026-10-16. Source approximate LRV: 44.

[Open exact source \[4\]](#)

Catalog / 7-9



X007 Xbox dark green

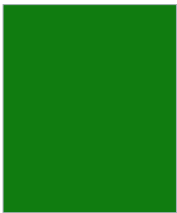
Xbox · 2019 guide, p. 15

#054B16 | RGB 5, 75, 22 | Green

Very dark forest green. A separate named 2019 guide color. The green hue remains distinct enough for Green rather than Black.

brand guide / public mirror; checked 2026-10-16.

[Open exact source](#) [14, 17]



X008 Xbox green

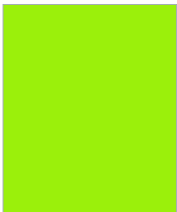
Xbox · 2019 guide, p. 15

#107C10 | RGB 16, 124, 16 | Green

Strong medium-dark green. Use #107C10 for this documented guide context, replacing the supplied #0E7A0D. Current official site accent CSS also contains #107C10.

brand guide / public mirror; checked 2026-10-16.

[Open exact source](#) [14, 15, 16, 17]



X009 Xbox light green

Xbox · 2019 guide, p. 15

#9BF00B | RGB 155, 240, 11 | Green

Brilliant yellow-green. A separate named 2019 guide color. Its strong yellow component does not make it a Yellow-family entry in this review.

brand guide / public mirror; checked 2026-10-16.

[Open exact source](#) [14, 17]

Catalog / 10-12



X010 Xena

Dulux Australia · S17D7

#847C54 | RGB 132, 124, 84 | Brown

Earthy olive-brown with a yellow undertone. A Brown/Green boundary decision. The muted, relatively dark appearance is grouped with earthy browns; the RGB and S17D7 identity remain explicit.

primary issuer; checked 2026-10-16. Source approximate LRV: 24.

[Open exact source](#) [2]



X011 Xenon Blue

Pantone TCX · 14-3949 TCX

#B7C0D7 | RGB 183, 192, 215 | Blue

Pale, subdued periwinkle blue. Cotton TCX system. The regional owner web preview agrees with the dealer TCX row. This simulation is not a physical Pantone standard.

primary issuer; checked 2026-10-16.

[Open exact source](#) [6, 8, 10]



X012 Xenon Blue

Pantone TPG · 14-3949 TPG

#BBC3D7 | RGB 187, 195, 215 | Blue

Pale, subdued periwinkle blue. Paper TPG system. Owner data resolves a contradictory dealer RGB row. Keep this identity separate from TCX even though both previews are similar.

primary issuer; checked 2026-10-16.

[Open exact source](#) [7, 9, 10]

Catalog / 13-15



X013 X Factor

Resene · R37-091-022

#681B2B | RGB 104, 27, 43 | Red

Dark wine red. Source chart references include The Range 2009, 2010 and 2011/12. A chart year is not proof of current product availability.

primary issuer; checked 2026-10-16. Source approximate LRV: 9.

[Open exact source \[5\]](#)



X014 Xiaomi Orange

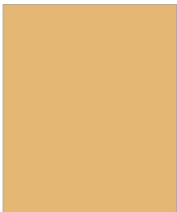
Xiaomi · Visual Identity, PDF p. 14

#FF6900 | RGB 255, 105, 0 | Orange

Vivid orange. Use #FF6900 for the documented guide and current homepage-logo context, replacing the supplied #FD4900. The mirror is not proof of the latest guide version.

brand guide / public mirror; checked 2026-10-16.

[Open exact source \[18, 19\]](#)



X015 Xirapha

Nerolac · 4027

#E4B774 | RGB 228, 183, 116 | Brown

Warm golden tan. A Brown/Orange boundary decision. The tan appearance is assigned Brown. The explicit hex agrees with the named main swatch field.

primary issuer; checked 2026-10-16.

[Open exact source \[3\]](#)

Catalog / 16-18



X016 Xotic

Resene · R44-092-028

#863336 | RGB 134, 51, 54 | Red

Muted, deep warm red. The checked source associates the name with The Range 2003. The digital preview does not specify a paint formulation.

primary issuer; checked 2026-10-16. Source approximate LRV: 14.

[Open exact source \[5\]](#)



X017 Xoxo

Behr · P110-7

#91507B | RGB 145, 80, 123 | Purple

Muted reddish purple or plum. Behr labels its catalog family Red; the exact preview reads as plum in this edition. Do not merge it with Resene XOXO.

primary issuer; checked 2026-10-15. Source approximate LRV: 13.

[Open exact source \[1\]](#)



X018 XOXO

Resene · V67-072-354

#D88BA9 | RGB 216, 139, 169 | Pink

Medium-light rose pink. Resene places it in its Violet palette; GKBook assigns Pink from this preview. Behr Xoxo is a separate darker color.

primary issuer; checked 2026-10-16. Source approximate LRV: 36.

[Open exact source \[5\]](#)

Resolutions / original list

All original values remain in the data audit. These are editorial resolutions, not silent overwrites of the supplied file. [26,27]

Xanadu

Supplied: #738678 / Gray → Reviewed family: Green

Qualify and separate contexts. Retain #738678 only as a public-list preview. Use #75876E in a separately labeled Resene entry. Change the supplied Gray label to Green for this edition, with “muted gray-green” as the boundary note. Remove the claim that the color was proven to be named after a plant. [5, 22]

Xanthic

Supplied: #EEED09 / Yellow → Reviewed family: Yellow

Retain as an illustrative public-list value. The word means yellow-related or yellow-tinted. #EEED09 is attested in Face Media Group’s list; neither that page nor a dictionary makes it a universal standard. Do not repeat the list’s inventor attribution as color-word history. [20, 22]

Xanthous

Supplied: #F1B42F / Yellow → Reviewed family: Yellow

Retain only as a supplied illustration. #F1B42F is a golden yellow / yellow-orange preview from the supplied list. No primary numerical specification was established. Merriam-Webster confirms yellow coloration and a separate hair-color sense; it supplies no hex. [21, 26, 27]

Illustration	Hex	Status
Xanadu	#738678	Public-list preview
Xanthic	#EEED09	Public-list preview
Xanthous	#F1B42F	Supplied illustration; primary numerical specification unverified

Resolutions / brand contexts

Xbox Green

Supplied: #0E7A0D / Green → Reviewed family: Green

Replace brand value; retain old field in audit. Replace #0E7A0D with #107C10 for the documented Xbox guide context. Cite the 2019 guide mirror and current official accent-CSS corroboration. Do not label it the latest authorized guide without access to that guide. [14, 15, 16, 17]

Xiaomi Orange

Supplied: #FD4900 / Orange → Reviewed family: Orange

Replace brand value; retain old field in audit. Replace #FD4900 with #FF6900. The inspected visual-identity guide and current mi.com logo SVG agree. Label the guide as an undated public mirror, with current website corroboration. [18, 19]

Resolve the brand values

Keep the original values in the audit; use the documented contexts in the page.



Xbox Green / supplied

Original value; not adopted as brand specification
#0E7A0D



Xbox Green / documented

2019 guide mirror + official website accent CSS
#107C10



Xiaomi Orange / supplied

Original value; not adopted as brand specification
#FD4900



Xiaomi Orange / documented

Guide mirror + official homepage logo SVG
#FF6900

Guide versions are qualified; these checks do not establish the latest authorized manuals. [14–19]

The original audit's recommendation to use the guide values is supported, but "current official brand guideline" would exceed what was verified. Current website usage is corroboration of a value, not proof of the latest manual. [14–19,27]

Conflicts and source boundaries

Xenon Blue: resolve the dealer disagreement

For 14-3949 TPG, the dealer publishes hex #BBC3D7 but RGB (186,194,214). That RGB converts to #BAC2D6, so the row cannot be treated as internally consistent. The separately checked regional owner publishes #BBC3D7 with RGB (187,195,215). Use the owner record and retain the dealer mismatch in the audit. TCX #B7C0D7 is consistent in both checked sources. [6–9,28]

Public-list candidates do not become standards

Face Media Group also lists Xiketic, Xxxtentacion and Xylophone. Xiketic's printed hex is malformed (#0c020), although its RGB would imply #0C020F. It is held rather than silently repaired. The other two are web-list attestations outside the core issuer/dictionary scope. Their presence on a list does not establish universal color names. [22]

Evidence retained for review

The JSON contains all 18 core records, the five original resolutions, the three qualified illustrations, historical and alias records, dealer disagreements, exclusions, coverage, and source manifests. Dates and SHA-256 hashes preserve which evidence was checked. The CSV holds the 18 main numerical records; it is not a dump of unresolved values.

Research limitations

No latest partner-only Xbox manual was inspected. The Xiaomi guide was available as an undated public mirror, corroborated for orange by the official logo SVG. Pantone USA identity text was readable through search, while direct archive retrieval returned 403; numerical values come from the publicly accessible regional owner pages. The NBS scan was read locally because web extraction exceeded the service's size limit. [6–10,14–19,23]

Coverage and completeness

Fresh X discovery recovered four Resene pages, one Dulux Australia page, one Nerolac page and one PPG page. PPG coverage followed the 22-page browse-all inventory containing 2,061 unique product URLs. Every discovered X paint page yielded an admitted numerical record.

The edition reused 183 broad source snapshots from the W research cycle of October 15–16, 2026. Original dates, URLs and hashes are preserved. This is reuse of recently checked inventories, not a claim that all those catalogs were fetched anew for X.

Behr contributes one record; X.Org contributes four plus six additional spellings. Two Pantone regional-owner records replace dealer-only evidence. The dealer TPG conflict remains visible in the audit. Brand-guide inspection adds three explicitly named Xbox greens and Xiaomi Orange.

Zero findings apply only to the listed snapshots, regions, releases and discovery paths. They are not claims that a company has never used an X name. Search prefixes are applied to the source color name itself; labels such as “xkcd blue” are not invented to populate X.

Full source pages, logos and scanned books are not republished in the package. The source manifest records retrieval status and hashes; original teaching graphics show exact color patches without copying logos or source-page layouts.

Inventories with no admitted X record

Source	Checked scope
Benjamin Moore	Color Families primary numerical snapshot
Sherwin-Williams	General RGB table, older RGB table, Emerald Designer Edition name/code list
Dunn-Edwards	2025 CAD ColorBooks, unique source codes
Asian Paints	Decorpro named color cards
RAL	English names in the checked official named-card inventory
Crayola	Explore Colors inventory
xkcd	Primary naming-survey RGB dataset; no artificial “xkcd” prefixes added
Jotun	Myanmar-English interior API, 110 pages, 989 rows / 972 unique identities
Farrow & Ball	Checked current, archive and family indexes
Little Greene	Checked sample-pot, family and archive indexes

Questions and digital readability

Are there any CSS color keywords beginning with X?

No. Both checked W3C tables have none. The X.Org rgb 1.1.1 file does contain literal names such as x11 gray and X11Gray. Those strings are not CSS named-color keywords; use an explicit hex or rgb() value in CSS. [11–13]

Why are there two XOXO records and two Xenon Blue records?

XOXO belongs to two different paint makers here, with visibly different previews. Xenon Blue appears in Pantone Cotton TCX and Paper TPG. The name alone is not enough to identify a source-specific color. [1,5–9]

Are Xanthic and Xanthous official yellows?

They are documented words, not universal numerical specifications. The displayed yellow illustrations retain their limited web-list or supplied-list status. [20–22,26]

Can the old brand hexes stay?

They may remain in an audit of the original page, but should not occupy the main brand-value field. Use the documented #107C10 Xbox guide context and #FF6900 Xiaomi guide/logo context, with the version qualifications shown. [14–19]

Is this every color beginning with X?

No finite survey can prove that no other maker or naming system uses another X name. This is a bounded, researched selection. The coverage register records both positive findings and inventories with no admitted X record.

Contrast is a separate check

The atlas reports contrast against pure black and pure white, calculated from the displayed RGB using the WCAG relative-luminance formula. These calculations assume opaque colors in the sRGB encoding. They are not paint LRV measurements. [25]

WCAG 2.2 SC 1.4.3 generally requires at least 4.5:1 for normal text and 3:1 for large text. Evaluate the unrounded number before declaring a pass. A suggested black or white label color is a useful local choice, not an accessibility audit of an entire page. [24]

References / makers and systems

- [1] Behr. Color-detail numerical inventory. Xoxo P110-7; snapshot October 15, reviewed October 16, 2026.
<https://www.behr.com/colors/color-detail/query-index.json>
- [2] Dulux Australia. Xena S17D7, explicit RGB/hex table.
<https://www.dulux.com.au/specifier/colour/s17/xena/>
- [3] Kansai Nerolac. Xirapha 4027, named hex and main swatch.
<https://www.nerolac.com/colour-catalogue/xirapha>
- [4] PPG Paints. Xavier Blue PPG1240-4, explicit RGB.
<https://www.ppgpaints.com/ppg-colors/xavier-blue>
- [5] Resene. X index and all four linked named previews. Individual URLs and chart contexts are retained in each record.
<https://www.resene.co.nz/swatches/search.php?type=letter&letter=X&page=1>
- [6] Pantone China. Xenon Blue 14-3949 TCX, public regional owner numerical preview.
<https://www.pantonecn.com/connect/14-3949-TCX>
- [7] Pantone China. Xenon Blue 14-3949 TPG, public regional owner numerical preview.
<https://www.pantonecn.com/connect/14-3949-TPG>
- [8] Pantone USA. Xenon Blue 14-3949 TCX; public text confirms name, code, system and Purple-Blue family. Numerical fields are masked. Direct archival retrieval returned 403.
<https://www.pantone.com/na/en-us/color-finder/14-3949-tcx>
- [9] Pantone USA. Xenon Blue 14-3949 TPG; public text confirms identity. Numerical fields are masked. Direct archival retrieval returned 403.
<https://www.pantone.com/na/en-us/color-finder/14-3949-tpg>
- [10] X-Rite China. Pantone Certified Printer Program page; its Pantone link points to pantonecn.com.
<https://www.xrite.cn/service-support/product-support/digital-color-standards/pantone-certified-printer-program/>

References / standards and brands

[11] X.Org. rgb 1.1.1 official release, rgb.txt. Four X11-prefixed identities; six additional source spellings.

<https://xorg.freedesktop.org/archive/individual/app/rgb-1.1.1.tar.gz>

[12] W3C. CSS Color Module Level 4, Candidate Recommendation Draft, October 9, 2026. 148 named keywords; none begins with X.

<https://www.w3.org/TR/2026/CRD-css-color-4-20261009/#named-colors>

[13] W3C. CSS Color Module Level 3, Recommendation, January 18, 2022. Stable corroboration: no X-initial keyword.

<https://www.w3.org/TR/css-color-3/#svg-color>

[14] Xbox Brand Guidelines, 2019 file, p. 15. Public copy hosted by RetroCDN; RGB and hex panels visually checked. Not a claim of latest authorization.

https://retrocdn.net/images/c/c0/Xbox_BrandGuidelines_2019-04-15.pdf

[15] Xbox. Official US homepage; links the green MWF stylesheet used for corroboration.

<https://www.xbox.com/en-US/>

[16] Xbox. Official linked stylesheet; accent foreground/background rules contain #107C10. Website implementation evidence, not a replacement brand manual.

<https://assets-xbxweb.xbox.com/xbox-web/static/css/mwf/west-european/green/mwf-main.min.css>

[17] Microsoft Learn. Branding and marketing assets, updated November 25, 2025. Describes Partner Center access to current Game Dev Portal assets.

<https://learn.microsoft.com/en-us/gaming/game-publishing/resources/managed-support/how-to-access-branding-and-marketing-assets>

[18] Xiaomi's Visual Identity Guidelines, undated public mirror hosted by The Palladium Agency, PDF p. 14. Orange RGB and HTML fields visually checked.

<https://thepalladium.agency/wp-content/uploads/2024/09/xiaomi.pdf>

[19] Xiaomi. Official global homepage. Its logo SVG explicitly uses fill #ff6900.

<https://www.mi.com/global/>

References / words and methods

[20] Merriam-Webster. Xanthic. Lexical meaning and etymology; no RGB or hex specification.

<https://www.merriam-webster.com/dictionary/xanthic>

[21] Merriam-Webster. Xanthous. Yellow coloration and hair-color senses; no RGB or hex specification.

<https://www.merriam-webster.com/dictionary/xanthous>

[22] Face Media Group. Colours Beginning with the Letter X. Commercial web-list attestations; not a color standard or reliable inventor history.

<https://www.facemediagroup.co.uk/resources/a-to-z-guides/a-to-z-of-colours/colours-beginning-with-the-letter-x>

[23] Kelly and Judd. Color: Universal Language and Dictionary of Names. NBS SP 440 (1976), printed p. 155 / PDF p. 191. Xanthine Orange, source R, category 51. DOI: 10.6028/NBS.SP.440.

<https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nbsspecialpublication440.pdf>

[24] W3C WAI. Understanding SC 1.4.3, Contrast (Minimum). Use actual foreground/background pairs and unrounded ratios.

<https://www.w3.org/WAI/WCAG22/Understanding/contrast-minimum.html>

[25] W3C. WCAG 2.2 relative-luminance and contrast-ratio definitions.

<https://www.w3.org/TR/WCAG22/#dfn-relative-luminance>

[26] Supplied x-colors.txt. Five comparison rows; original spelling, values and families preserved in the data package.

[27] Supplied x-colors-audit-report.txt, May 27, 2026. Claims rechecked rather than accepted as numerical authority.

[28] Columbia Omni Studio. FHI dealer table, part 2. Xenon Blue TCX agrees internally; TPG RGB and hex disagree.

<https://columbiaomnistudio.com/pages/fhicolors2>