



A few words about the Spot Matching System

The Spot Matching System (SMS) is originally created for so-called *Brand Design*, - i.e. for brands to use SMS colours in their official brand logos and as their official brand colours.

The system is a device-independent, LAB based, professional colour palette, containing a total of 8.690 colours for 21st Century demands in design, where *visual predictability and consistency in colour from product to marketing in any mainstream media is a key factor*.

Device-independent means that SMS colours don't depend on just one device - or media for that matter. Using modern icc colour management, they can be reproduced in RGB for digital displays and in process printing on coated or uncoated substrates, be it standard CMYK for offset, gravure or flexo printing presses or for digital printing on paper or textile. SMS colours can additionally be reproduced using analog paints and dyes.

The main advantage of the Spot Matching System is that both our standard SMS colours and our ECO colours fulfil the criteria that designers can use the same SMS colours consistently in standard CMYK printing on coated paper, CMYK printing on uncoated paper, for standard digital displays such as laptops, tablets and smart phone displays and on TV/Cinema, *maintaining the same colour(s) visually for side-by-side comparison*.

This consequently means that you can easily communicate the expected visual appearance of your SMS colours, as they should look when printed in CMYK on paper or when they are displayed online or on Television with your customers and stakeholders around the world instantly via email or a website to take the guesswork out of the equation and to speed up your work.

All they need is a calibrated display, capable of displaying at least 100% of the sRGB gamut on their end

Since the Spot Matching System is a collection of fixed LAB values, any product can be manufactured in SMS colours using existing, proprietary inks or dyes to ensure correct colour of the final product. This means that any product manufactured and dyed using SMS colours can also be marketed colour correctly in any mainstream media to maximize customer satisfaction.



How to use the media neutral SMS colours for professional brand design.

Step-by-Step instructions

This presentation is intended for professional Designers that want to use the media neutral colours of the Spot Matching System without having to order colours or other services from Spot-Nordic when the colours are required for other purposes than what their colour palette is intended for (Web), such as Television graphics, Textile, CMYK or other process Printing - analog or digital).

For correct evaluation of SMS colours, please view them on a monitor capable of displaying the sRGB colourspace at least.

Most decent monitors and even laptops are capable of this but to be on the safe side please check - and make sure that your customer also has a decent monitor to evaluate colours in sRGB format (the standard for the Internet).

If you haven't already, please invest in a monitor calibrator + software and adjust your monitor to display sRGB colours correctly and recommend the same for you customer. Such calibration packages are available from, for instance, Datacolor (Spyder) and Lumesca (Calibrite/Xrite) for 2-400 Euros. You can order such a device from Spot-Nordic if you visit <https://www.spot-nordic.com/qc>.

This may seem expensive but this is a one time investment and it will also ensure that images and entire layouts you view on your monitor will be much closer to what to expect from printing, when you softproof them on your monitor/display.

Remember that all digital displays „trend“ and in a digital world it is as essential to keep your display colour correct, as it was renewing your Pantone guides every 12-18 months. Otherwise the colours are simply no longer correct and you don't know what to expect from your Printer nor what your design SHOULD look like online.



How to use the media neutral SMS colours for professional brand design.

Step-by-Step instructions

You have a new customer and they have made it clear that they have been unhappy with how unstable their current logo and trademark colours have been in the different media and even within the same media.

So you decided to use the Spot Matching System colour palette to stay on the safe side to do at least what you can do to keep their colours consistent in all media.

When using SMS colours, you already know that all SMS colours are safe for both web and Television so the first step is to choose the papertypes you want to use for the customer.

You decide to use bright, white paper for marketing in print. The papertypes you chose to use for brochures and leaflets are in accordance with the papertypes used for printing to Fogra 51 standards (using the icc profile PSO Coated v3) and the paper you chose for the office material is suited for printing according to Fogra 52 using the PSO Uncoated v3 icc profile.

Now it is time for you to select your SMS colour palette.



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Here is an overview of the available SMS colour palettes: Standard, ECO and MAX

SPOT matching system Version 6	ECO (P20e)	Standard (P20)	Standard (P20o) Home & Office	MAX (P20x)	MAX (P20xo) Home & Office
45% NTSC (most PC laptops) (Web/UI/AR/VR)	■		■		■
sRGB (Web/UI/AR/VR)	■	■	■	■	■
REC. 709 (Video)	■	■	■	■	■
REC. 2020 (Video)	■	■	■	■	■
Fogra 58 RGB (Digital Printing on Textile)	■	■	■	■	■
Fogra 39/ISO COATED V2) (Premium Coated paper)	■	■	■	■	■
Fogra 51/PSO COATED V3) (Premium Coated paper)	■	■	■	■	■
Fogra 47/ISO UNCOATED V2 (Premium Uncoated paper)	■	■	■		
GRACoL 2006 (Premium coated paper)	■	■	■	■	■
Japan Color 2011 (Premium coated paper)	■	■	■	■	■
Fogra 52/PSO UNCOATED V3 (Premium Uncoated Paper)	■	■	■		
CGATS21-2 CRPC6 (Premium Coated paper)	■	■	■	■	■
CGATS21-2 CRPC3 (Premium Uncoated paper)	■	■	■		
CGATS21-2 CRPC5 (Coated Publication Printing)	■				
CGATS21-2 CRPC1 (Coldset Newspaper)	■				
WAN-IFRA (ISO 12647-3 - Newspaper)	■				
Munken Lynx (White Uncoated Paper)	■	■	■		
Munken Pure (Off-White Uncoated Paper)	■				

Contact: sms@spot-nordic.com

www.spotmatchingsystem.com



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Converting SMS colours from one colour space to another

Step-by-Step instructions

Since you have established that you need to be able to print on both white coated and uncoated Premium paper, you have the choice of using either the Standard, Standard Home & Office or the ECO colour palette.

You decide to use the Standard palette (P20) in sRGB format.

The colours of the SMS Standard palette are suited for printing to Fogra 51 and Fogra 52 and similar standards, so it is safe to use it for this customer.

So you contact sms@spot-nordic.com and order your P20 colour palette.

The price is EUR 90 (subject to change) and the colour palette contains a total of 1738 colours each.

Optionally you can buy it online in our Spot-Nordic [webstore](#).

SMS colour palettes can also be delivered in other formats, such as png or tif on request. The general format of SMS colour palettes is PDF.

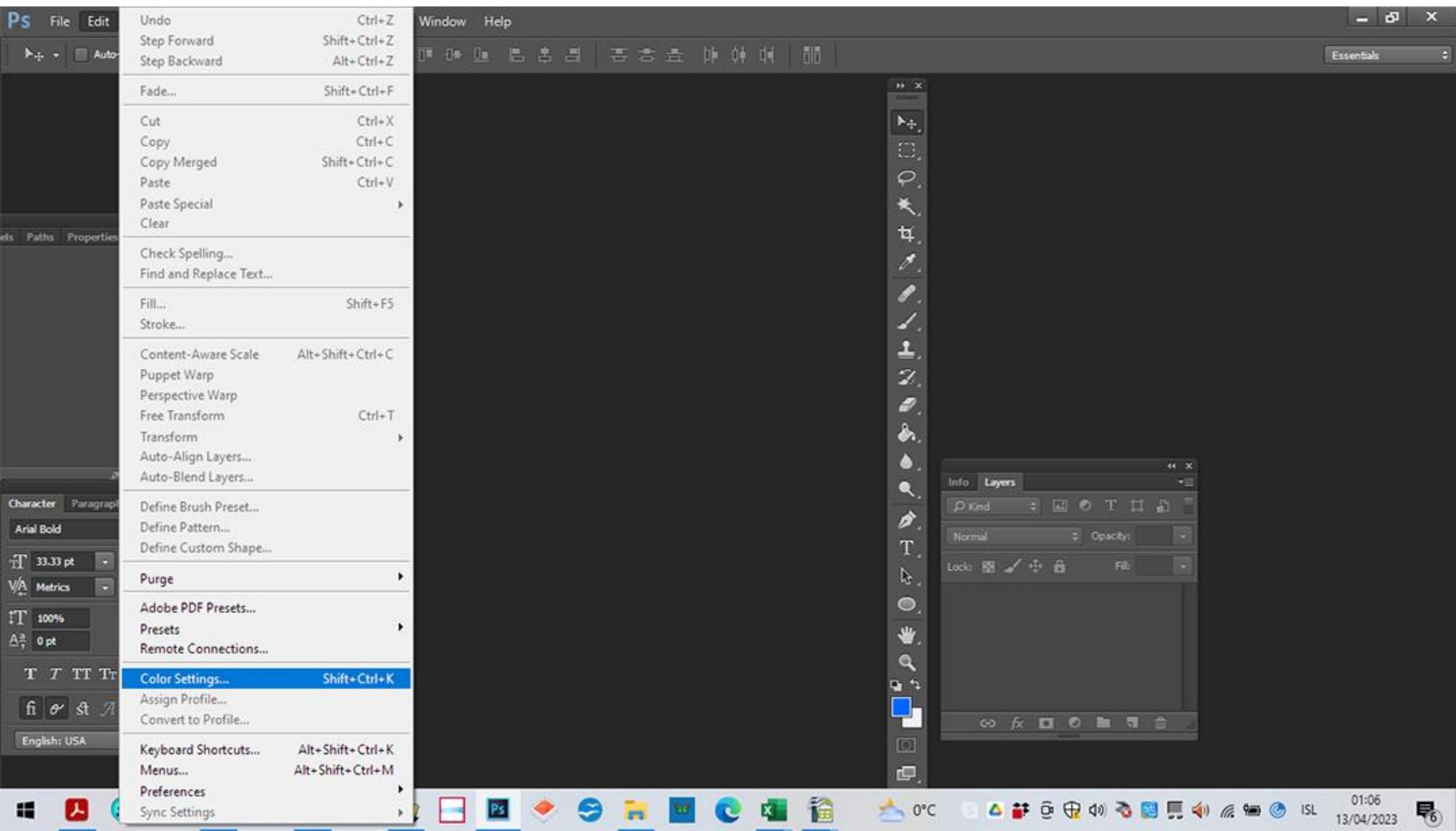
Once you have your P20 colour palette, the first thing to do is to set up your workspace in Adobe Photoshop.



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Open Photoshop Go to Colour Settings



The screenshot shows the Adobe Photoshop interface. The 'Edit' menu is open, and 'Color Settings...' is highlighted. The interface includes the top menu bar (File, Edit, Window, Help), the toolbar, the Properties panel, the Character panel, and the Layers panel. The Windows taskbar is visible at the bottom.

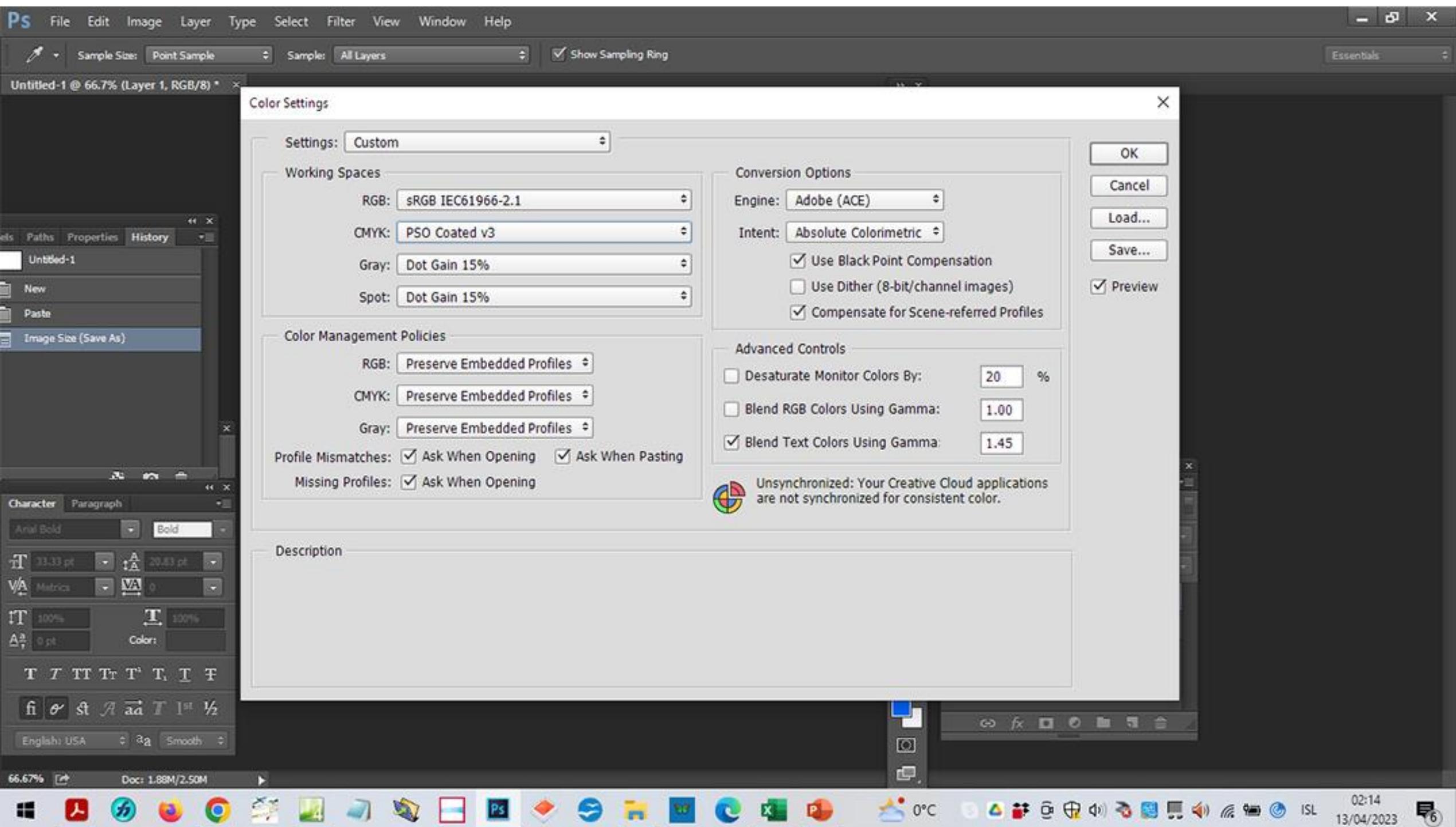
Menu Item	Shortcut
Undo	Ctrl+Z
Step Forward	Shift+Ctrl+Z
Step Backward	Alt+Ctrl+Z
Fade...	Shift+Ctrl+F
Cut	Ctrl+X
Copy	Ctrl+C
Copy Merged	Shift+Ctrl+C
Paste	Ctrl+V
Paste Special	
Clear	
Check Spelling...	
Find and Replace Text...	
Fill...	Shift+F5
Stroke...	
Content-Aware Scale	Alt+Shift+Ctrl+C
Puppet Warp	
Perspective Warp	
Free Transform	Ctrl+T
Transform	
Auto-Align Layers...	
Auto-Blend Layers...	
Define Brush Preset...	
Define Pattern...	
Define Custom Shape...	
Purge	
Adobe PDF Presets...	
Presets	
Remote Connections...	
Color Settings...	Shift+Ctrl+K
Assign Profile...	
Convert to Profile...	
Keyboard Shortcuts...	Alt+Shift+Ctrl+K
Menus...	Alt+Shift+Ctrl+M
Preferences	
Sync Settings	



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RGB to sRGB
CMYK to [PSO Coated v3](#) (click to download icc profile)
NOTE: Intent: **Absolute Colorimetric**



The screenshot shows the Adobe Photoshop interface with the Color Settings dialog box open. The dialog is configured for a custom color management setup. The 'Working Spaces' section is set to RGB: sRGB IEC61966-2.1, CMYK: PSO Coated v3, Gray: Dot Gain 15%, and Spot: Dot Gain 15%. The 'Conversion Options' section is set to Engine: Adobe (ACE), Intent: Absolute Colorimetric, with checkboxes for Use Black Point Compensation, Use Dither (8-bit/channel images), and Compensate for Scene-referred Profiles. The 'Color Management Policies' section is set to RGB: Preserve Embedded Profiles, CMYK: Preserve Embedded Profiles, and Gray: Preserve Embedded Profiles. The 'Advanced Controls' section has checkboxes for Desaturate Monitor Colors By (20%), Blend RGB Colors Using Gamma (1.00), and Blend Text Colors Using Gamma (1.45). The 'Profile Mismatches' and 'Missing Profiles' sections have checkboxes for Ask When Opening and Ask When Pasting. The 'Description' field is empty. The background shows the Photoshop workspace with the Character panel and the Photoshop menu bar.

Color Settings

Settings: Custom

Working Spaces

RGB: sRGB IEC61966-2.1

CMYK: PSO Coated v3

Gray: Dot Gain 15%

Spot: Dot Gain 15%

Conversion Options

Engine: Adobe (ACE)

Intent: Absolute Colorimetric

Use Black Point Compensation

Use Dither (8-bit/channel images)

Compensate for Scene-referred Profiles

Color Management Policies

RGB: Preserve Embedded Profiles

CMYK: Preserve Embedded Profiles

Gray: Preserve Embedded Profiles

Profile Mismatches: Ask When Opening Ask When Pasting

Missing Profiles: Ask When Opening

Advanced Controls

Desaturate Monitor Colors By: 20 %

Blend RGB Colors Using Gamma: 1.00

Blend Text Colors Using Gamma: 1.45

Unsyncronized: Your Creative Cloud applications are not synchronized for consistent color.

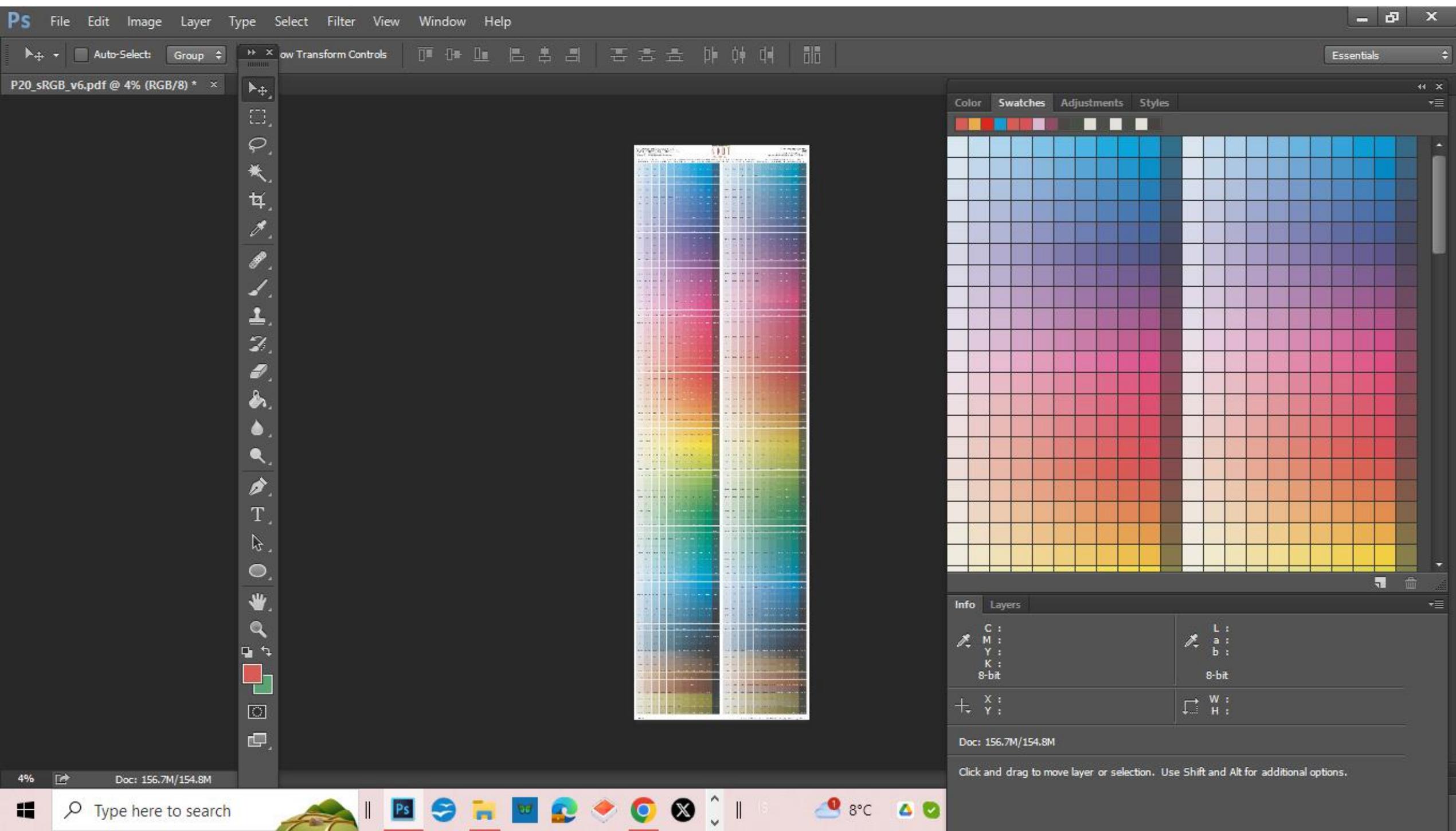
Description



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Open your SMS colour palette -
in this case the P20 Standard v6 colour palette
in sRGB format containing 1.738 colours.

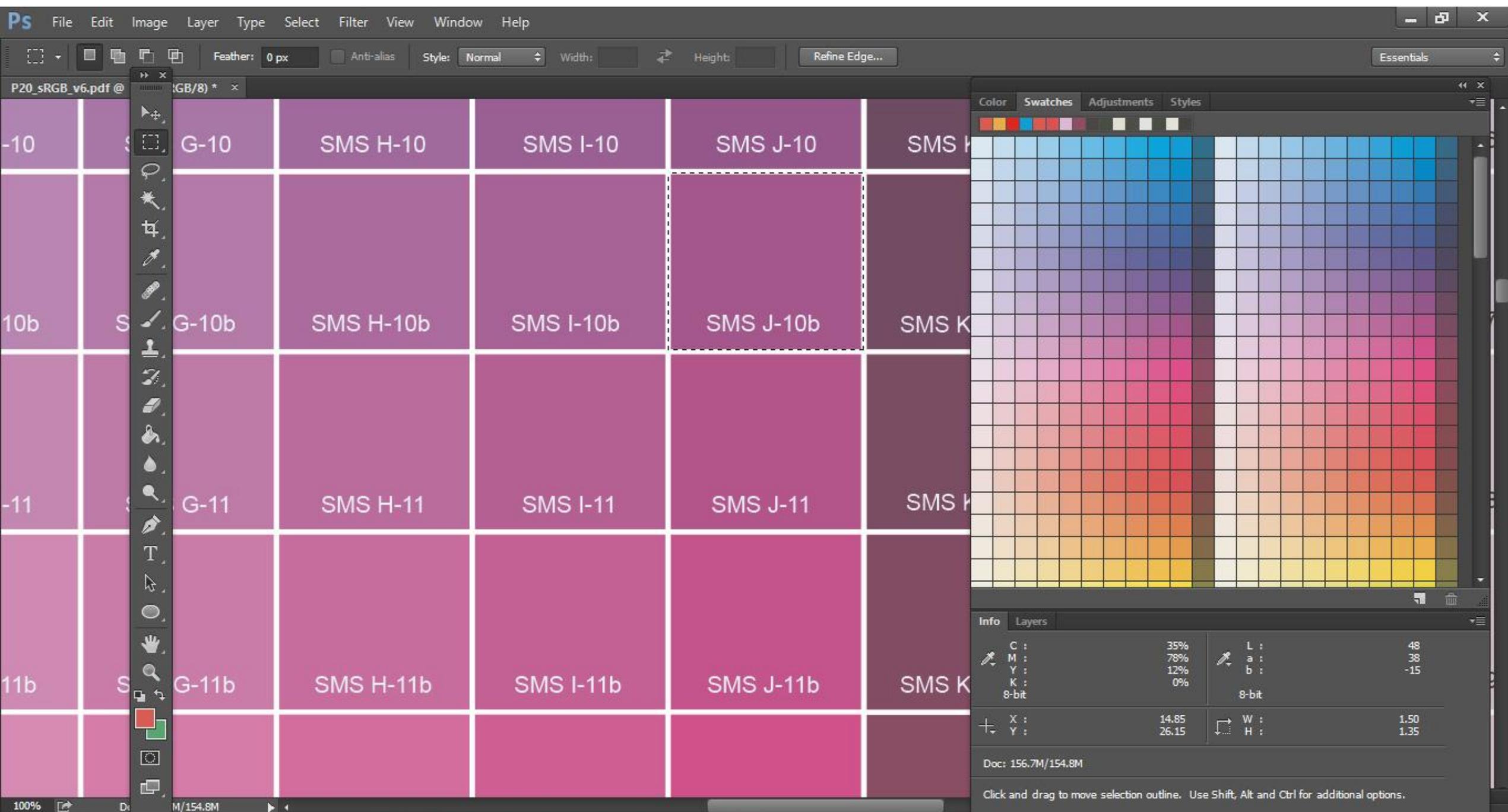




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Pick out your first colour - any colour you like.
In our example we pick J-10b as our first colour.

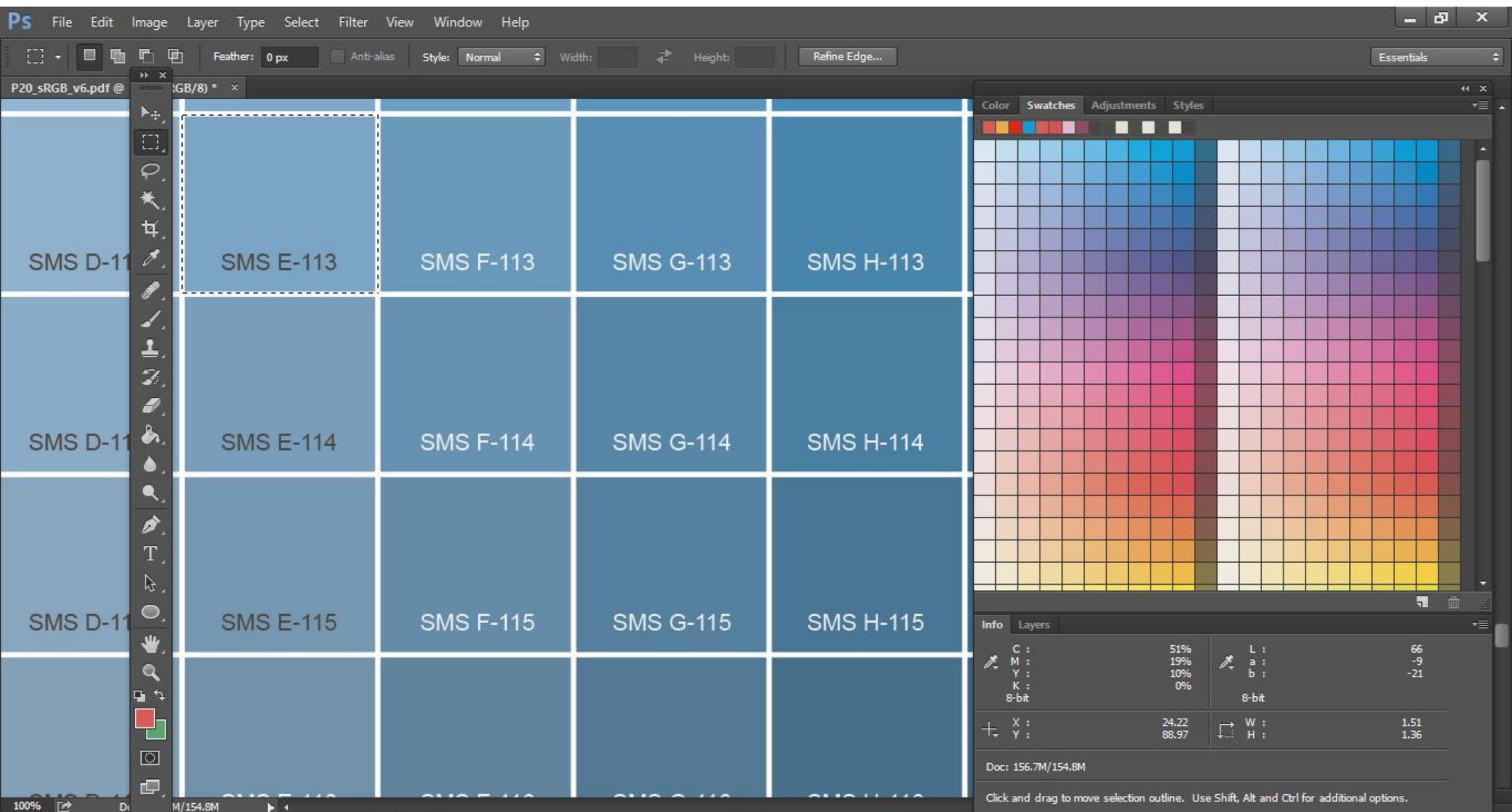




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Pick out your second SMS colour.
In our example we pick one of the
newer SMS colours - SMS E-113

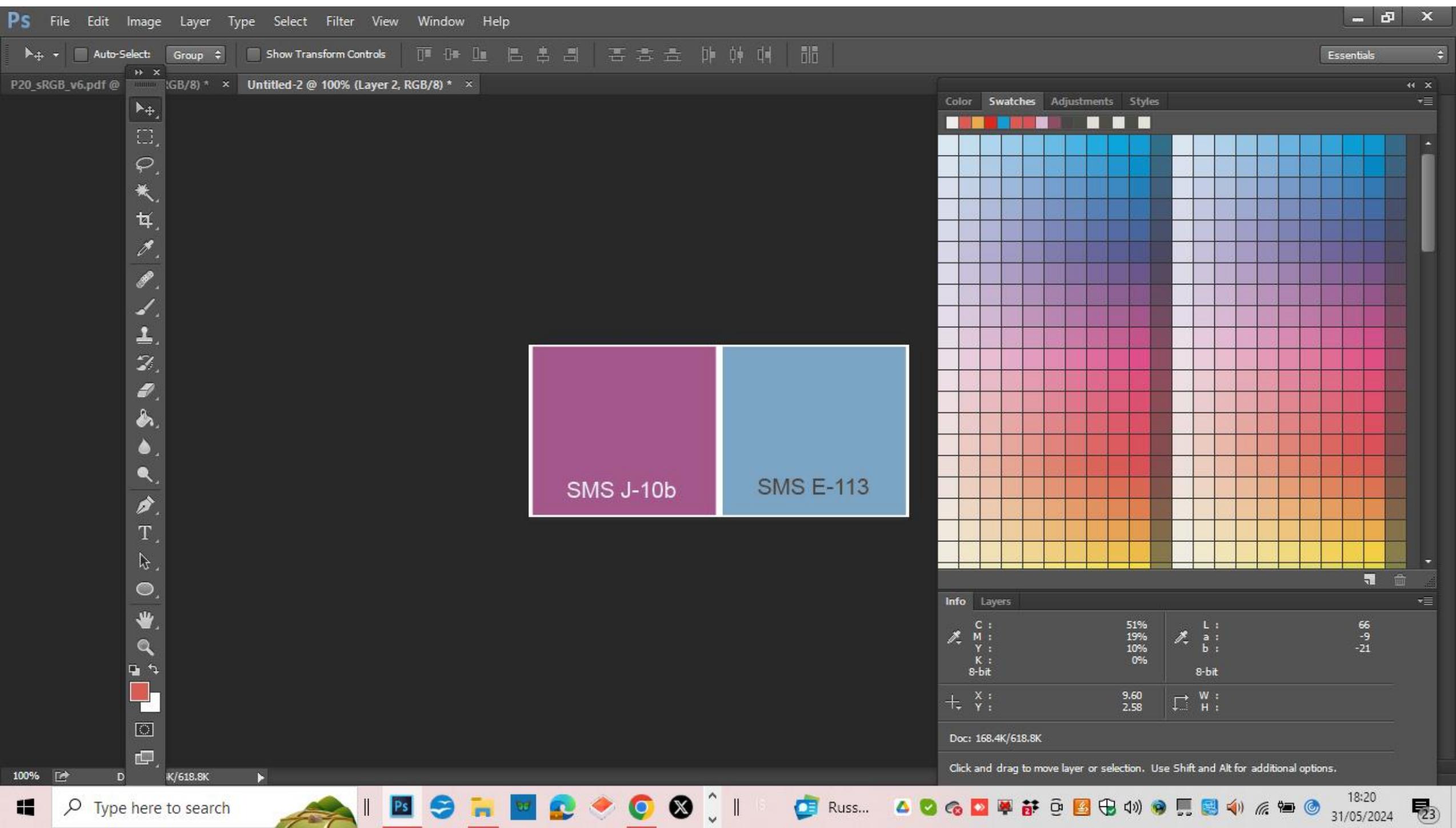




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Copy your colours to a new document.
Save in in your customer's folder as TIFF/TIF:
Name of your choice_web version_sRGB_colours

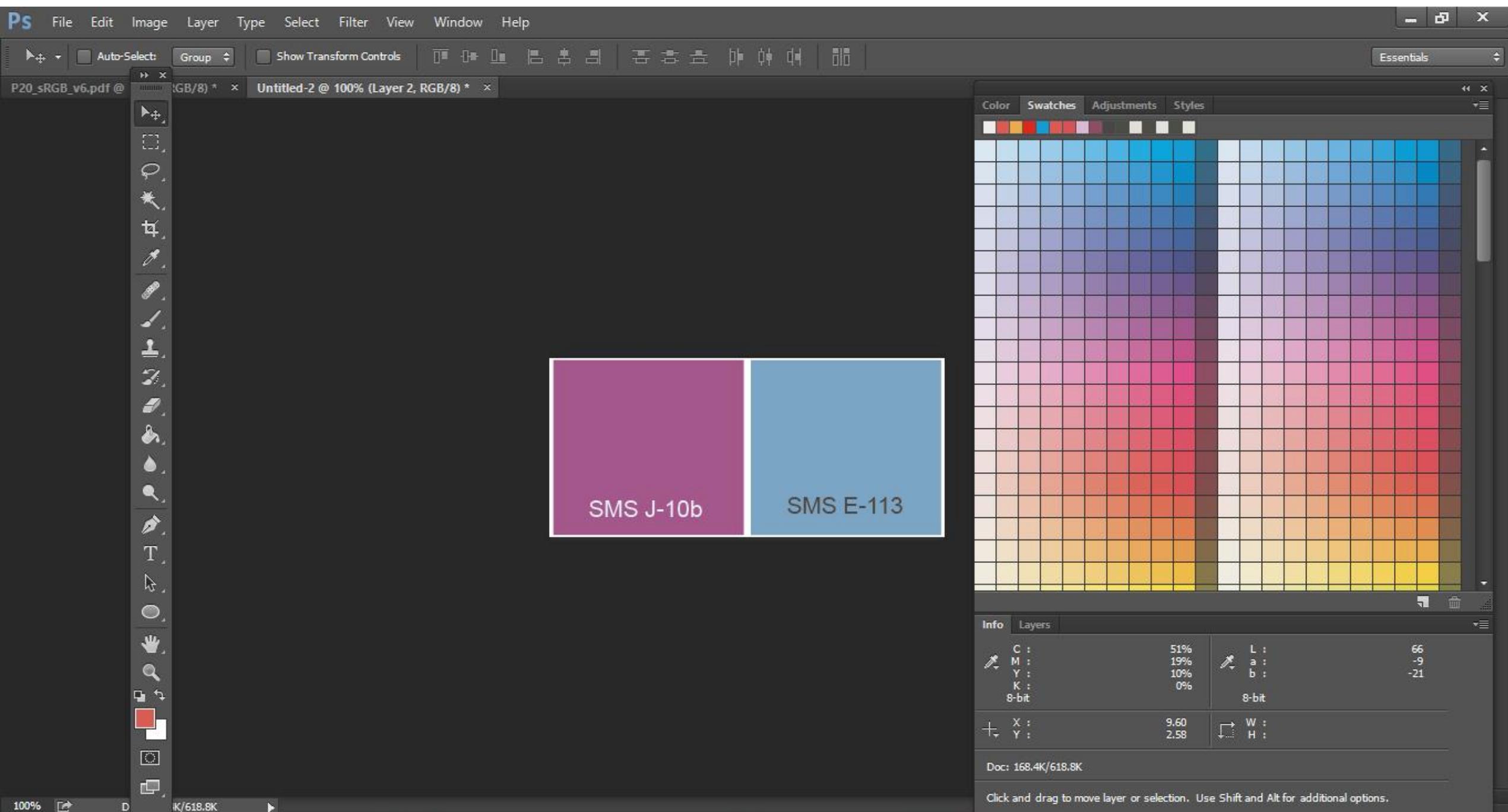




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Make sure that you embed the sRGB icc profile with the file when you save it - in maximum quality.

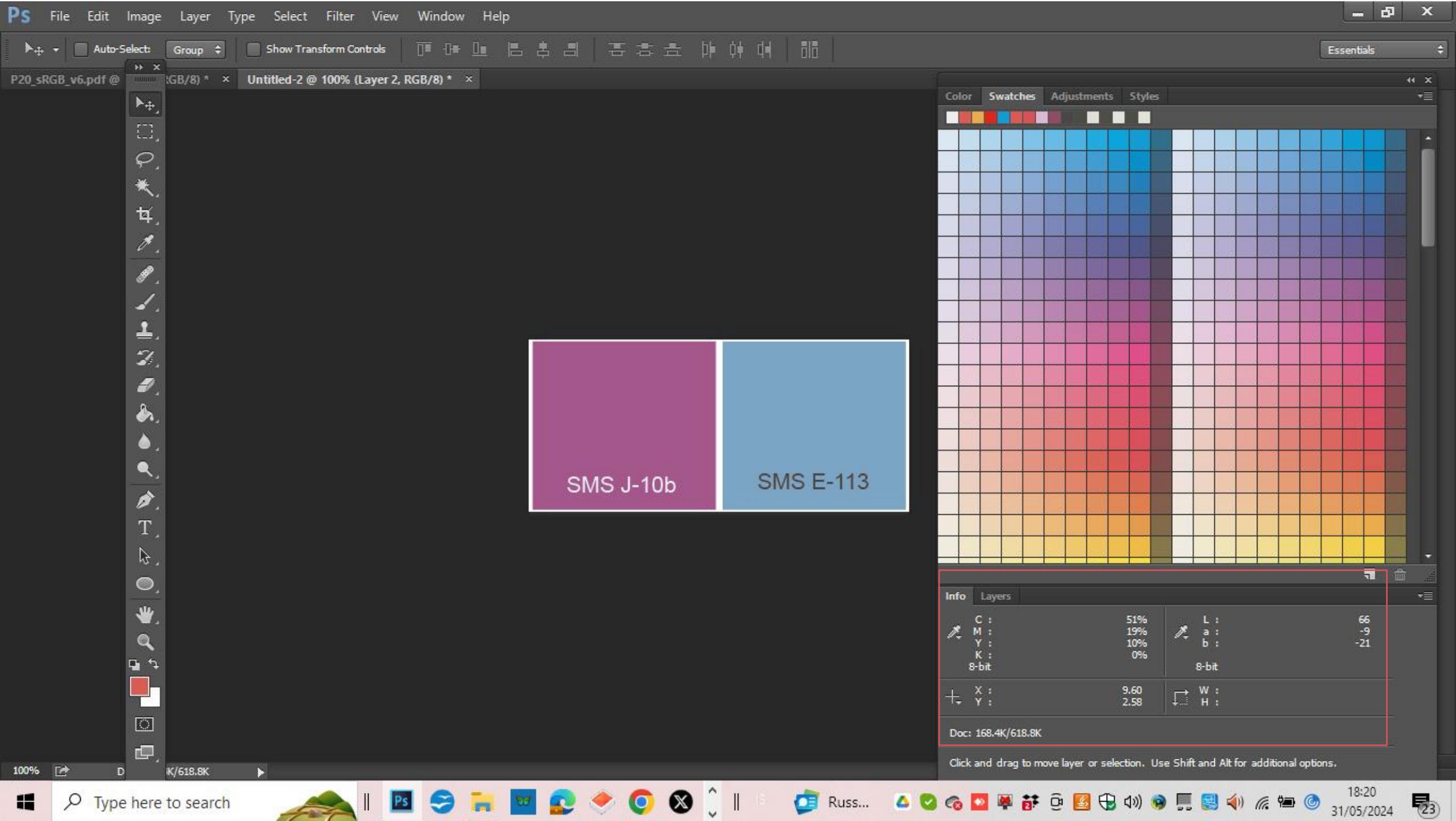




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What we see here is the CMYK and **LAB** value of the light blue colour. Hover over the purple cube to see the same for the purple colour.



The screenshot shows the Adobe Photoshop interface. In the center, there are two color swatches: a purple one labeled "SMS J-10b" and a light blue one labeled "SMS E-113". To the right, a color calibration chart is visible. The Info panel at the bottom right is highlighted with a red box, showing the following data:

Property	Value	Property	Value
C :	51%	L :	66
M :	19%	a :	-9
Y :	10%	b :	-21
K :	0%		
8-bit		8-bit	
X :	9.60	W :	
Y :	2.58	H :	

Doc: 168.4K/618.8K

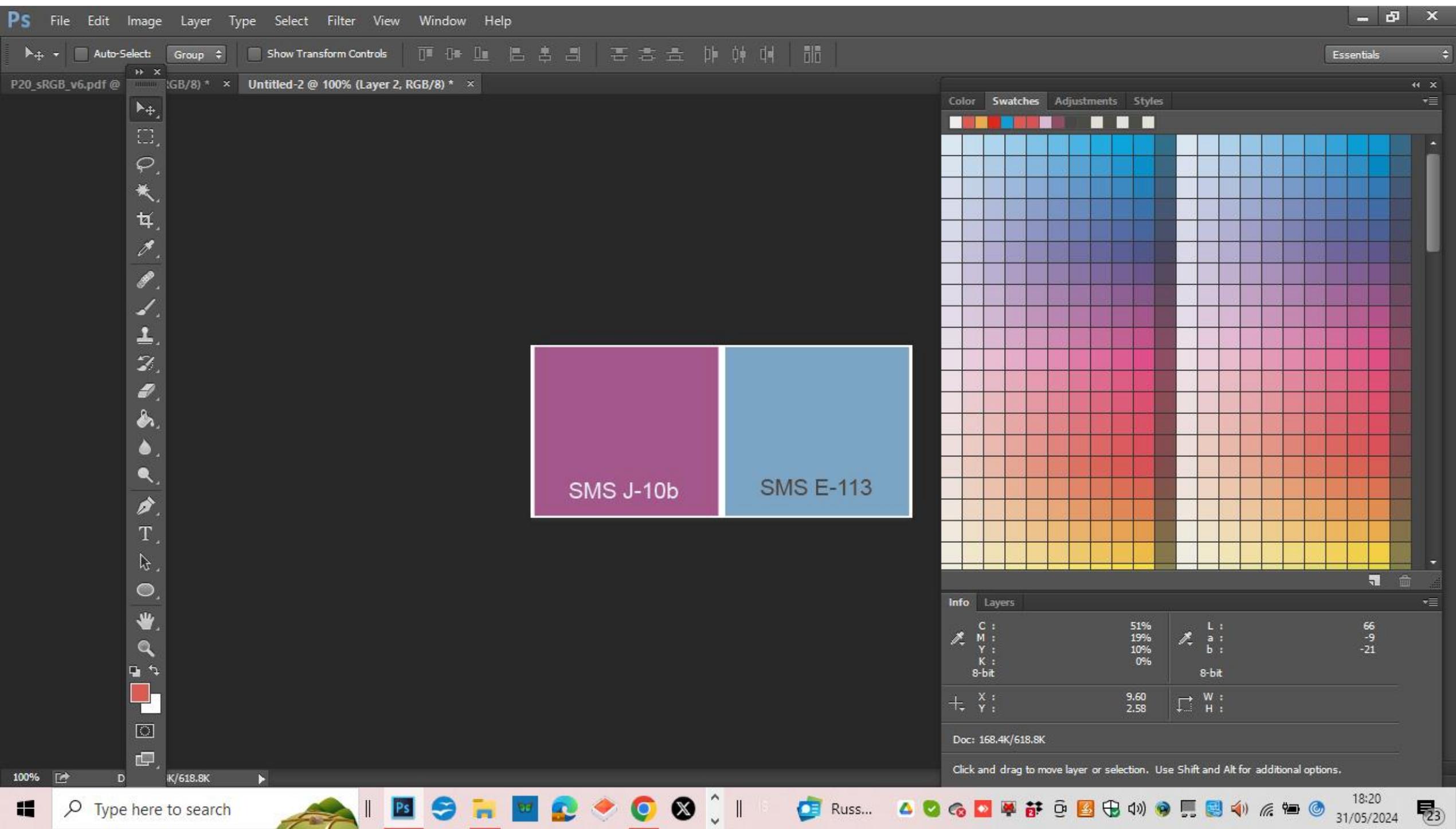
Click and drag to move layer or selection. Use Shift and Alt for additional options.



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At this stage you can begin work on your project, present it to your customer and get his or her approval.

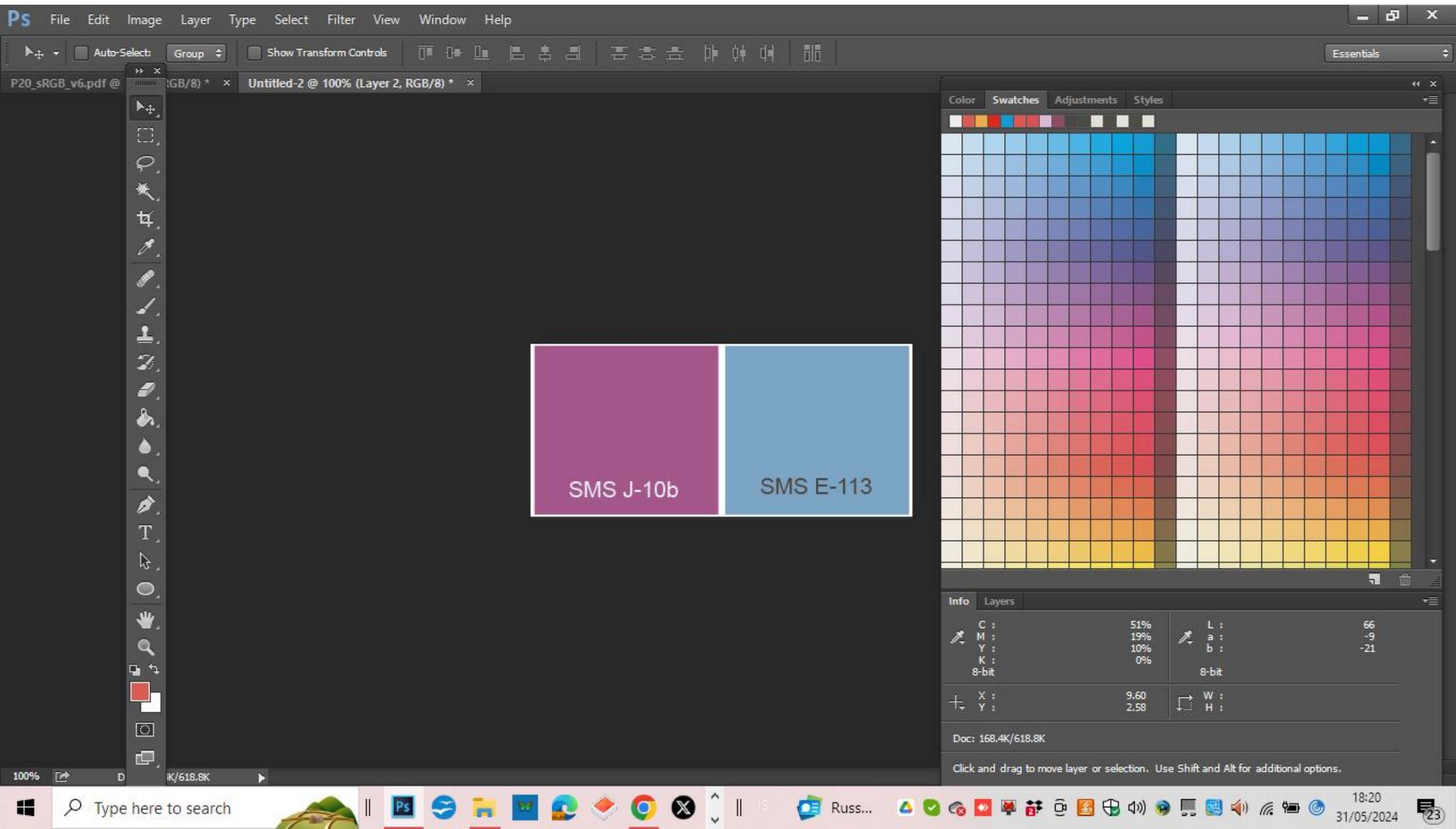




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If you are only designing for print, you can of course do that.
In that case you can skip the next 2 slides.



The screenshot shows the Adobe Photoshop interface. The main canvas displays two color swatches: a purple one labeled "SMS J-10b" and a blue one labeled "SMS E-113". To the right, the Color panel shows a color calibration chart with a grid of color patches. The Info panel at the bottom right displays the following data:

Property	Value	Property	Value
C	51%	L	66
M	19%	a	-9
Y	10%	b	-21
K	0%		
8-bit		8-bit	
X	9.60	W	
Y	2.58	H	

Doc: 168.4K/618.8K

Click and drag to move layer or selection. Use Shift and Alt for additional options.



Use the application(s) of your choice to do each job.

Suggested applications are:

Adobe Illustrator
Adobe Indesign
Adobe Photoshop
Affinity Design
CorelDraw

Make sure to use sRGB as the RGB colour space and make sure that the document is an RGB document - not CMYK.

See further instructions at www.spotmatchingsystem.com/gettingstarted

In short: Import your SMS colours in sRGB format to your workspace and use the Eyedropper tool to add your chosen SMS colours to your swatches.

Name them SMS number_sRGB

Begin work on your jobs.

Save each job with the colour space in the name in PDF format - for instance name of customer_letterheads_sRGB.



SPOT matching system

Open your design app. Create a new document for your first job, - in sRGB format.

Import your SMS colour TIFF/TIF in sRGB format to your workspace and use the Eyedropper tool to create the sRGB colours in your colour palette - as shown below. Name the colours - clearly - as name of colour sRGB, to make sure not to mess up your colours later.

If you are working in Affinity or Adobe apps you could optionally export your colour palette in ASE format for easy import later.

Finish the job and save it. Export a copy in PDF for your customer. Embed the sRGB icc profile.

The image shows a design workspace with a vertical line on the right. On the left, there is a screenshot of a software interface showing a 'Swatches' panel with a list of colors: None, White, Black, Registration, SMS J-10b sRGB, and SMS E-113 sRGB. Below this, two color swatches are shown: a purple one labeled 'SMS J-10b' and a blue one labeled 'SMS E-113', with the text 'sRGB TIFF/TIF bitmaps' underneath. On the right side of the workspace, the 'SPOT matching system' logo is displayed in purple and blue, with the text 'Your design workspace - Your artwork' below it.



Once you have finished all your jobs in sRGB format and gotten approval from your customer for the website, the letterheads/stationaries, envelopes, business cards leaflets and whatever they need for the launch of their new brand identity;

The next step is to create your Print colours.

In our example we want to convert our SMS colours to Fogra 51 CMYK for printing on coated paper and Fogra 52 CMYK for printing of the office-material on uncoated paper.

Feel free to use any of the other supported standards for the Standard system - see the list on slide 3.

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Open Name of your choice_web
version_sRGB_colours.TIFF in Photoshop with the
same settings as before. Select Convert to profile

The screenshot shows the Adobe Photoshop interface. The 'Edit' menu is open, and the 'Convert to Profile...' option is highlighted. The main canvas displays a color calibration chart with two color patches labeled 'SMS J-10b' and 'SMS E-113'. The Photoshop interface includes the menu bar, toolbar, and various panels like Color, Swatches, Adjustments, and Info.

Menu items visible in the 'Edit' menu:

- Undo (Ctrl+Z)
- Step Forward (Shift+Ctrl+Z)
- Step Backward (Alt+Ctrl+Z)
- Fade... (Shift+Ctrl+F)
- Cut (Ctrl+X)
- Copy (Ctrl+C)
- Copy Merged (Shift+Ctrl+C)
- Paste (Ctrl+V)
- Paste Special
- Clear
- Check Spelling...
- Find and Replace Text...
- Fill... (Shift+F5)
- Stroke...
- Content-Aware Scale (Alt+Shift+Ctrl+C)
- Puppet Warp
- Perspective Warp
- Free Transform (Ctrl+T)
- Transform
- Auto-Align Layers...
- Auto-Blend Layers...
- Define Brush Preset...
- Define Pattern...
- Define Custom Shape...
- Purge
- Adobe PDF Presets...
- Presets
- Remote Connections...
- Color Settings... (Shift+Ctrl+K)
- Assign Profile...
- Convert to Profile...**
- Keyboard Shortcuts... (Alt+Shift+Ctrl+K)
- Menus... (Alt+Shift+Ctrl+M)
- Preferences
- Sync Settings

Color calibration chart labels:

- SMS J-10b
- SMS E-113

Photoshop interface panels:

- Color
- Swatches
- Adjustments
- Styles
- Info
- Layers

System tray information:

- 100%
- Typ
- 18:43
- 31/05/2024

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Select CMYK - Working CMYK - PSO Coated v3.
Intent: Absolute Colorimetric
Uncheck Use Dither as shown

The screenshot displays the Adobe Photoshop interface with the 'Convert to Profile Advanced' dialog box open. The dialog is configured as follows:

- Source Space:** Profile: sRGB IEC61966-2.1
- Destination Space:** CMYK, Profile: Working CMYK - PSO Coated v3
- Conversion Options:** Engine: Adobe (ACE), Intent: Absolute Colorimetric
- Checkboxes:** Use Black Point Compensation, Use Dither, Flatten Image to Preserve Appearance

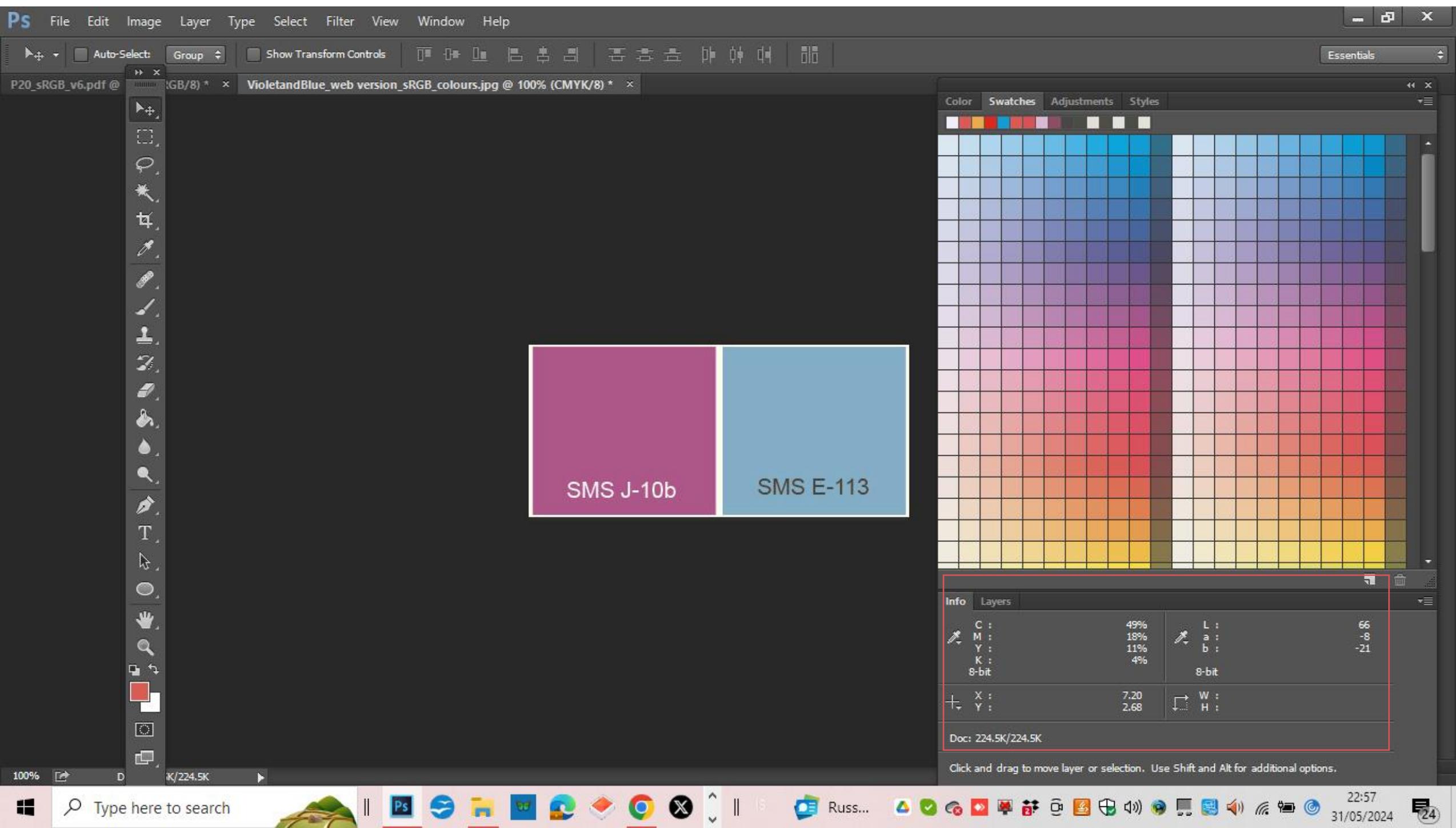
The background shows a color calibration chart labeled 'SMS E-113' and a color bar. The Photoshop interface includes the menu bar (File, Edit, Image, Layer, Type, Select, Filter, View, Window, Help), the toolbar, and the Properties panel on the right.



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Now notice that the CMYK values have changed slightly but the LAB values remain the same or at least extremely close to the same.



The screenshot shows the Adobe Photoshop interface with two color swatches, SMS J-10b (purple) and SMS E-113 (blue), selected. The Color panel on the right displays the color data for the selected spot. The Info panel at the bottom right shows the CMYK and Lab values for the selected spot.

Color	Swatches	Adjustments	Styles
C	49%	L	66
M	18%	a	-8
Y	11%	b	-21
K	4%		
8-bit		8-bit	
X	7.20	W	
Y	2.68	H	

Doc: 224.5K/224.5K

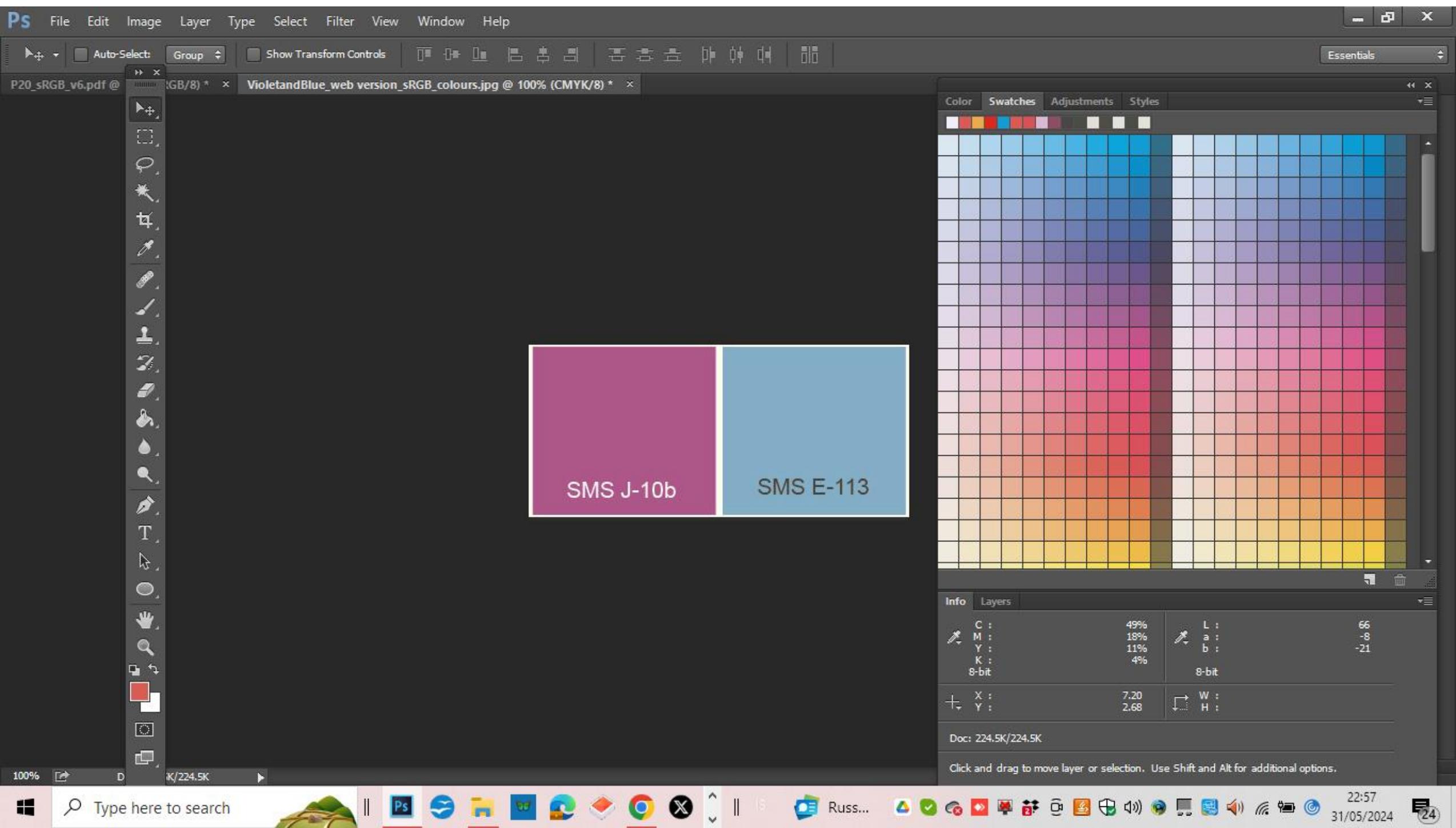
Click and drag to move layer or selection. Use Shift and Alt for additional options.



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Save in your customer's folder in TIFF/TIF format as
Name of your choice_Fogra 51_Coated_paper
Remember to *embed the icc profile* when you save it.



The screenshot shows the Adobe Photoshop interface. The main canvas displays a color calibration chart with a grid of color patches. Two specific color swatches are highlighted: SMS J-10b (a magenta color) and SMS E-113 (a light blue color). The Photoshop interface includes the menu bar (File, Edit, Image, Layer, Type, Select, Filter, View, Window, Help), the toolbar on the left, and the Properties panel on the right. The Properties panel shows the color values for the selected swatches: C: 49%, M: 18%, Y: 11%, K: 4% and L: 66, a: -8, b: -21. The bottom status bar shows the document size as 224.5K/224.5K.

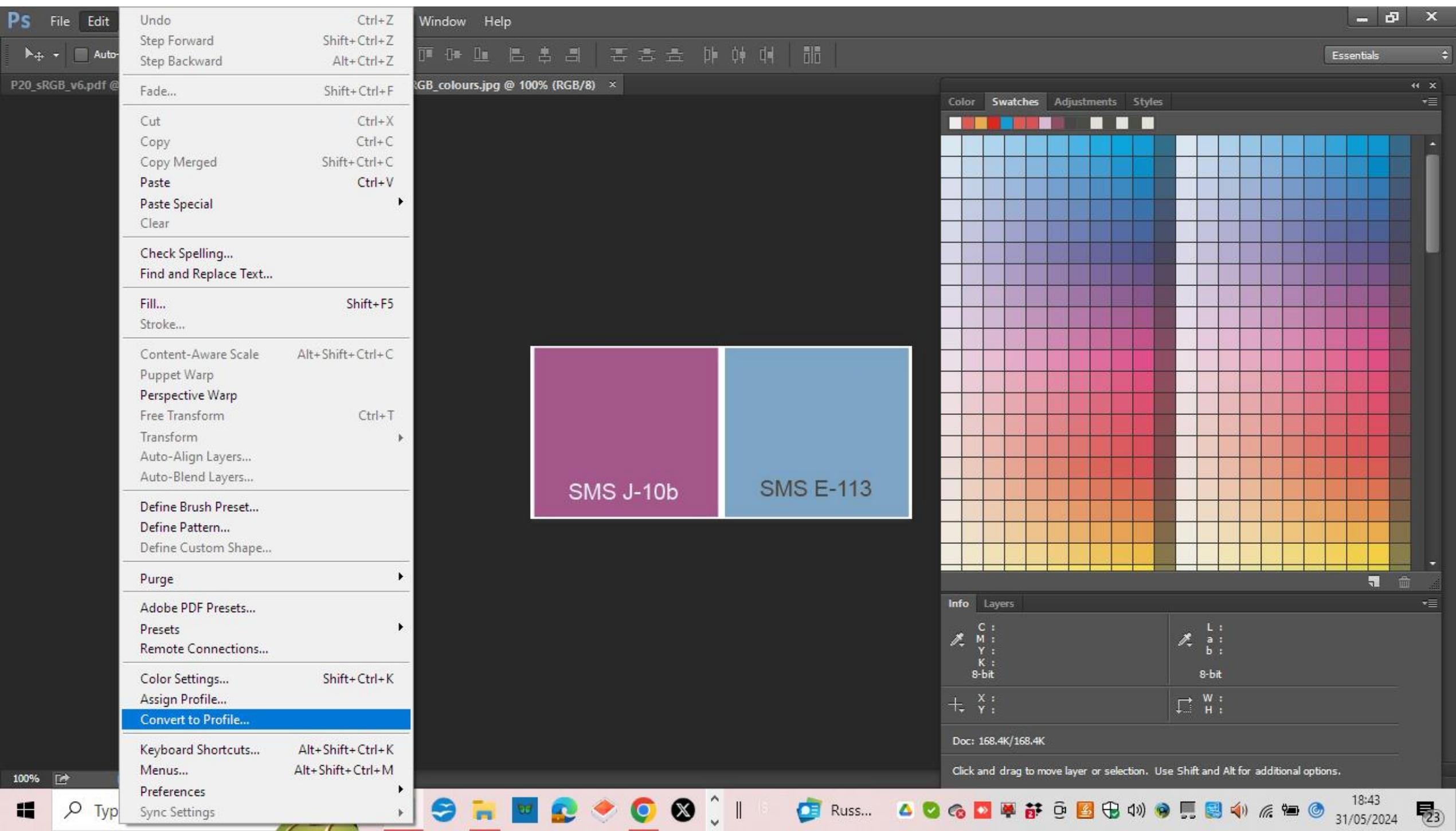
Color	C (%)	M (%)	Y (%)	K (%)	L	a	b
SMS J-10b	49%	18%	11%	4%	66	-8	-21
SMS E-113							



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Close the file (don't save it) and then open the sRGB TIFF/TIF file again. Select Convert to profile again.



The screenshot shows the Adobe Photoshop interface with the 'Convert to Profile...' option highlighted in the 'Edit' menu. The background displays a color calibration chart with two color patches labeled 'SMS J-10b' and 'SMS E-113'. The Photoshop interface includes the 'File' menu, 'Edit' menu, 'Window' menu, and 'Help' menu. The 'Convert to Profile...' option is highlighted in blue. The 'Info' panel at the bottom right shows color data for the selected area.

Color	Swatches	Adjustments	Styles
C : M : Y : K : 8-bit	L : a : b : 8-bit	X : Y :	W : H :

Doc: 168.4K/168.4K

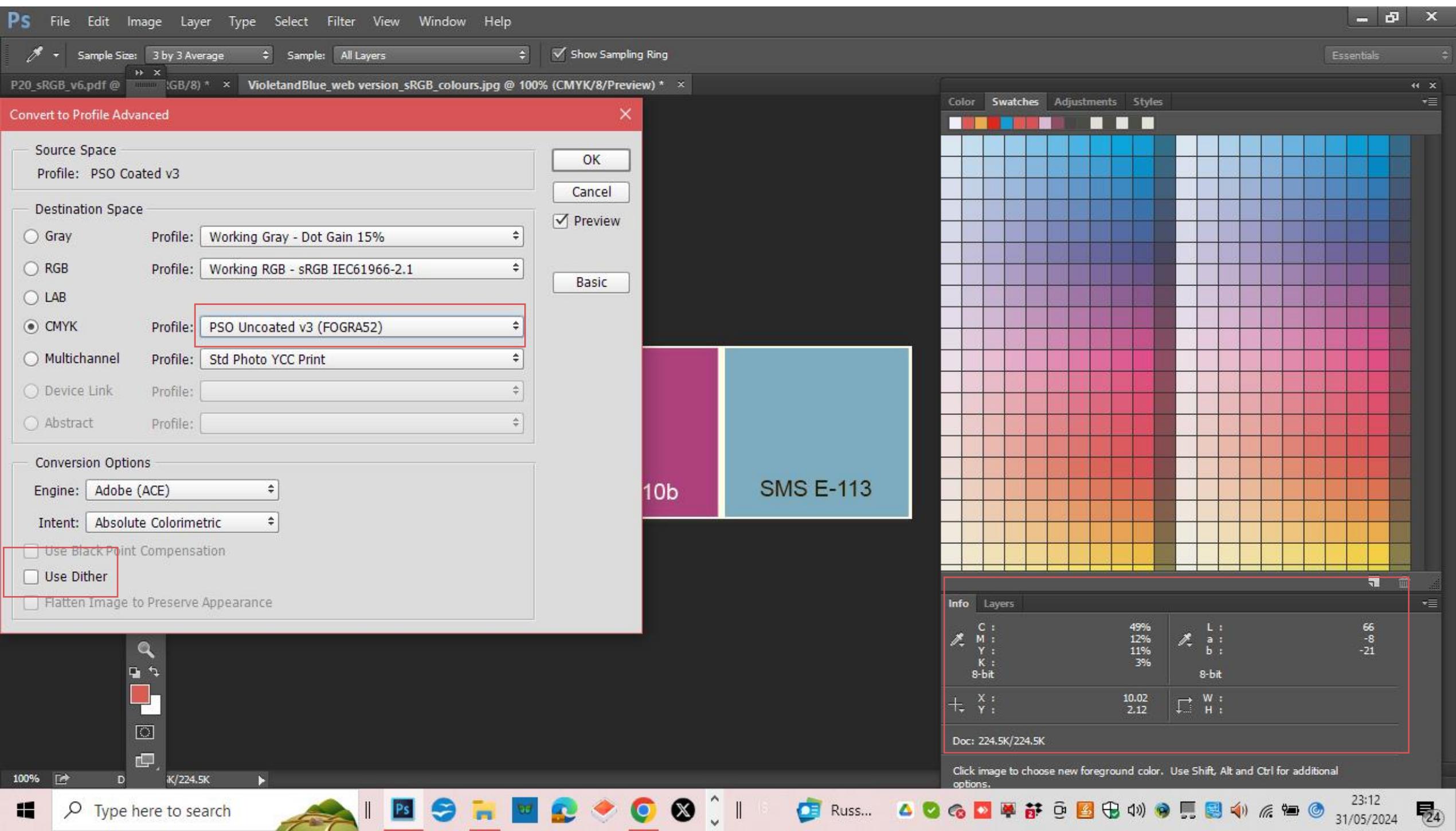
Click and drag to move layer or selection. Use Shift and Alt for additional options.



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Convert to PSO Uncoated v3 (for the office material)
Notice now that **CMYK** values change radically while
the **LAB** values remain almost exactly the same.



The screenshot shows the Adobe Photoshop interface with the 'Convert to Profile Advanced' dialog box open. The dialog box is set to convert from 'PSO Coated v3' to 'PSO Uncoated v3 (FOGRA52)'. The 'Destination Space' is set to 'CMYK'. The 'Conversion Options' section shows 'Engine: Adobe (ACE)' and 'Intent: Absolute Colorimetric'. The 'Use Dither' checkbox is checked. The 'Info' panel shows the following values:

Property	Value	Property	Value
C	49%	L	66
M	12%	a	-8
Y	11%	b	-21
K	3%		
8-bit		8-bit	
X	10.02	W	
Y	2.12	H	

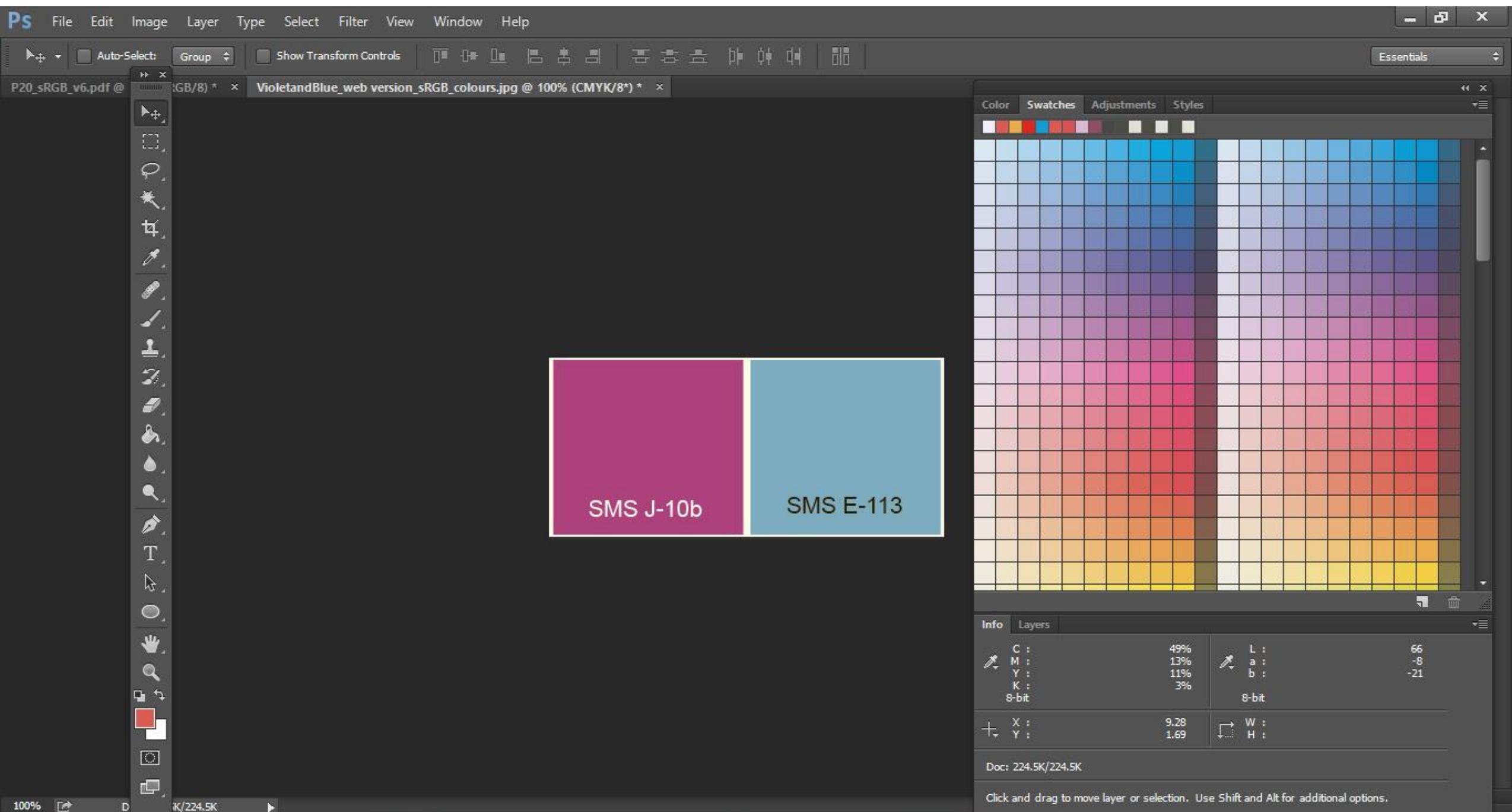
The 'Info' panel also shows 'Doc: 224.5K/224.5K' and 'Click image to choose new foreground color. Use Shift, Alt and Ctrl for additional options.'



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Save the file in your customer's folder in TIFF/TIF format as
Name of your choice_Fogra 52 version_Uncoated_paper.
Embed the CMYK icc profile with the file.

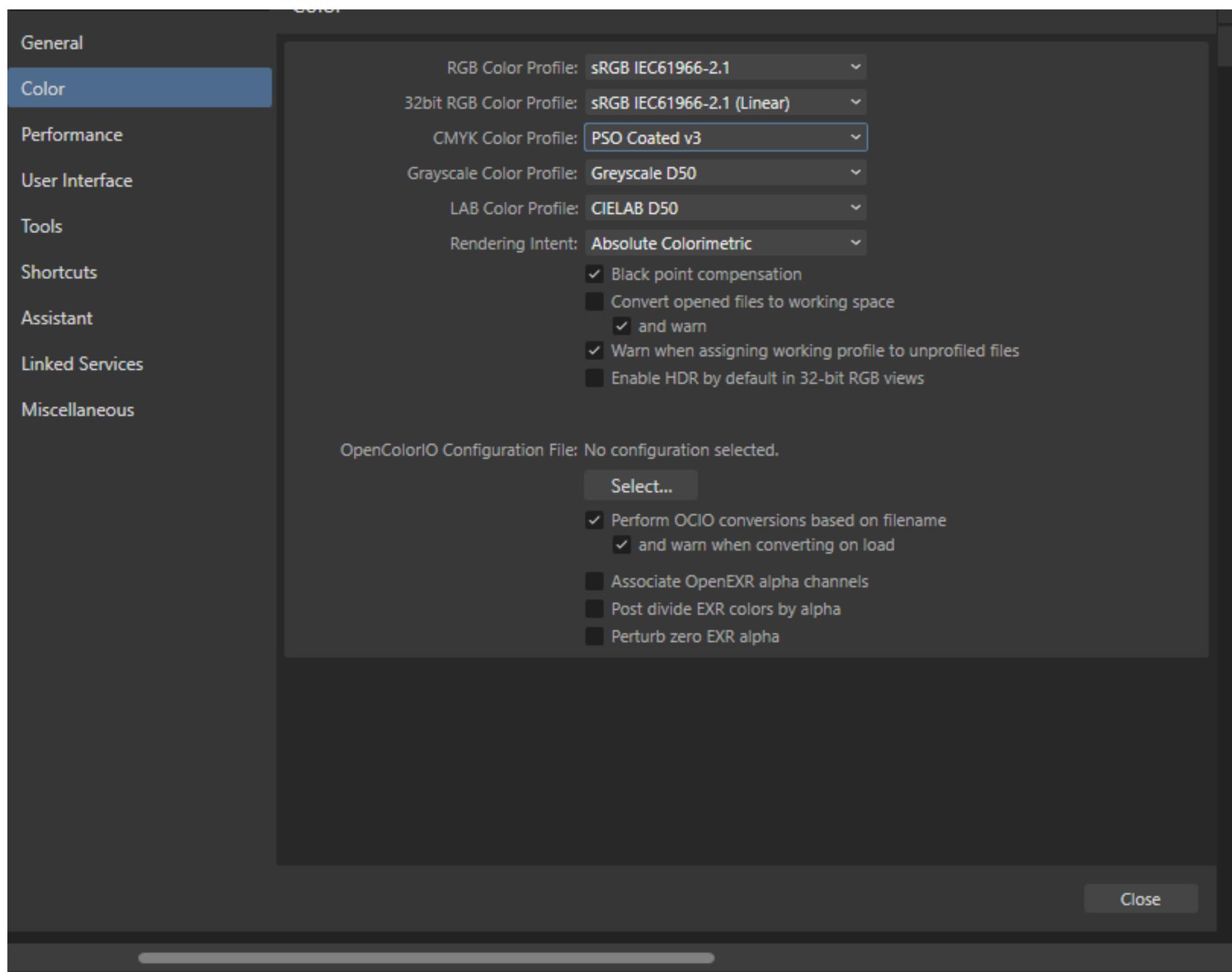




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Before you begin preparing your print documents, set your workspace correctly. For instance, before you begin work on the Fogra 51 document, we propose the following settings:





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Now go back to your design app.

Open or import the documents you created in sRGB format, one at the time. Start with the documents created for printing on coated paper, where you need to change the colours from sRGB to Fogra 51.

Delete the sRGB TIFF/TIF image and Import/place your SMS colour TIFF/TIF in Fogra 51 format instead to your workspace. and use the Eyedropper tool to replace the sRGB colours in your colour palette with the same colours in Fogra 51 format. The colours of your entire artwork should be automatically updated to the Fogra 51 colours. Double check them in your artwork to be sure that they have been changed to your new colours. Change them manually if needed, one graphic item at the time.

The image shows a design workspace with a swatch palette on the left and the SPOT matching system logo on the right. The swatch palette is titled 'Assets' and has tabs for 'Swatches', 'Styles', and 'Library'. It lists several swatches: 'None', 'White', 'Black', 'Registration', 'SMS J-10b sRGB', and 'SMS E-113 sRGB'. Below the palette are two color swatches: a purple one labeled 'SMS J-10b' and a blue one labeled 'SMS E-113'. Below these swatches is the text 'Fogra 51 TIFF/TIF bitmaps'. The SPOT matching system logo is displayed in purple and blue colors, with the text 'SPOT' in large letters and 'matching system' below it. Below the logo is the text 'Your design workspace - Your artwork'.



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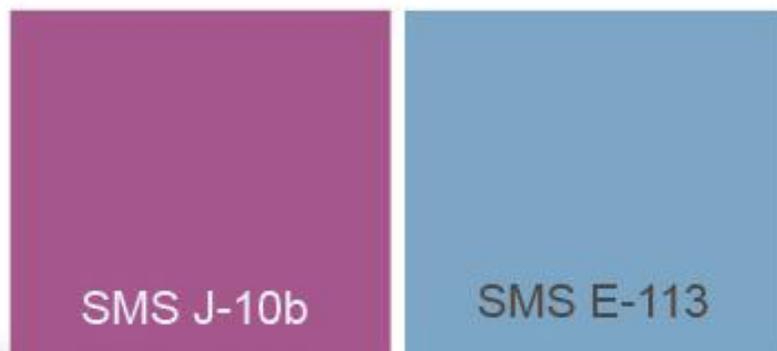
matching system

Name the new colours in your colour palette SMS number_Fogra 51

Save your document as Name of your choice_Fogra51 and then safe/export it as Press-Ready PDF with the Fogra 51 icc profile embedded if possible. Now your document is ready to be printed to Fogra 51 standards.

Rasterize Everything on export.

Use the same method to prepare your files for printing to Fogra 52 - or any other print condition you chose to use, - just as long as it is included as a print condition for your SMS colour palette (see slide 3).



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To be sure that you did everything correctly, before you send the job to your printer, we recommend that you open the PDF version of the job in Adobe Photoshop with Fogra 51 selected as the CMYK gamut for the Fogra 51 jobs, Fogra 52 selected as the CMYK gamut for the Fogra 52 jobs etc.

Make sure that you have Absolute Colorimetric Rendering Intent selected in your colour settings and then double check that the LAB values of both the bitmaps and your artwork are a) the same and b) correct, - i.e. the correct LAB value it should be (you simply open your SMS P20 colour palette and hover over the colours you chose).

If the LAB values are considerably different (a drop or bump by 1 in either direction is ok), you have probably done something wrong and you need to go back and redo the job.

Spot-Nordic offers professionals to do a simple test job where we assist you remotely until you have everything under control and are ready to work with SMS colours and to assist others, be it to create jobs or just to check if SMS colours are correct or not.

This is recommended for professional designers and prepress personnel.

The price for the remote training and assistance plus an SMS READY Expert diploma is EUR 60.

See further instructions at www.spotmatchingsystem.com/experts.



If one day you need to use other colour systems than SMS for a specific purpose, there are some methods to do this.

Let's start with the easiest one, that you can do by yourself.

If you have those libraries built into your application, you can locate the closest colour to your SMS colour in that library.

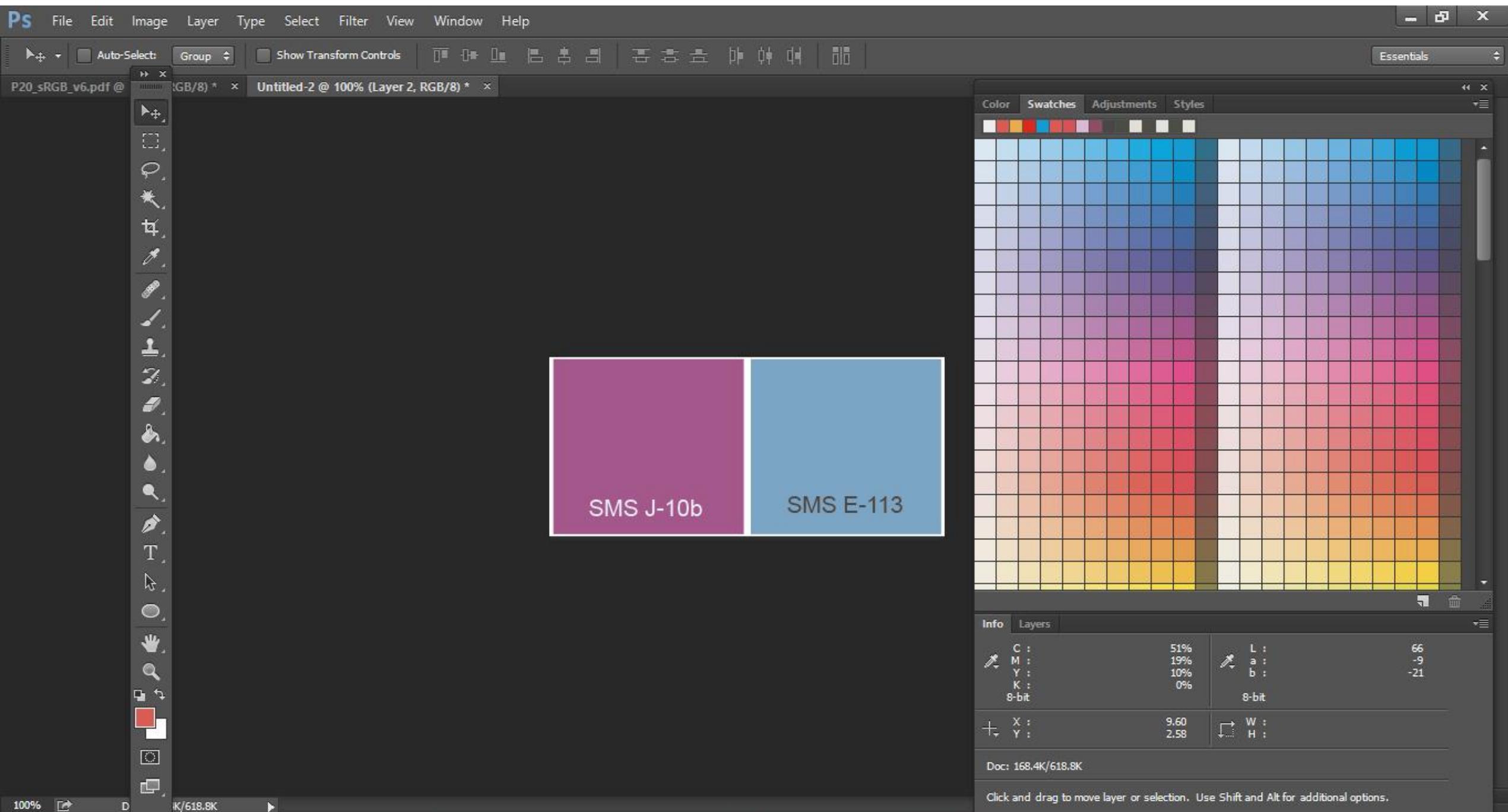
For instance, if you have access to the Pantone libraries from within your app, it is easy to locate the closest Pantone colour.



SPOT

matching system

Here is how you do it in Photoshop.
Open your original sRGB png image.

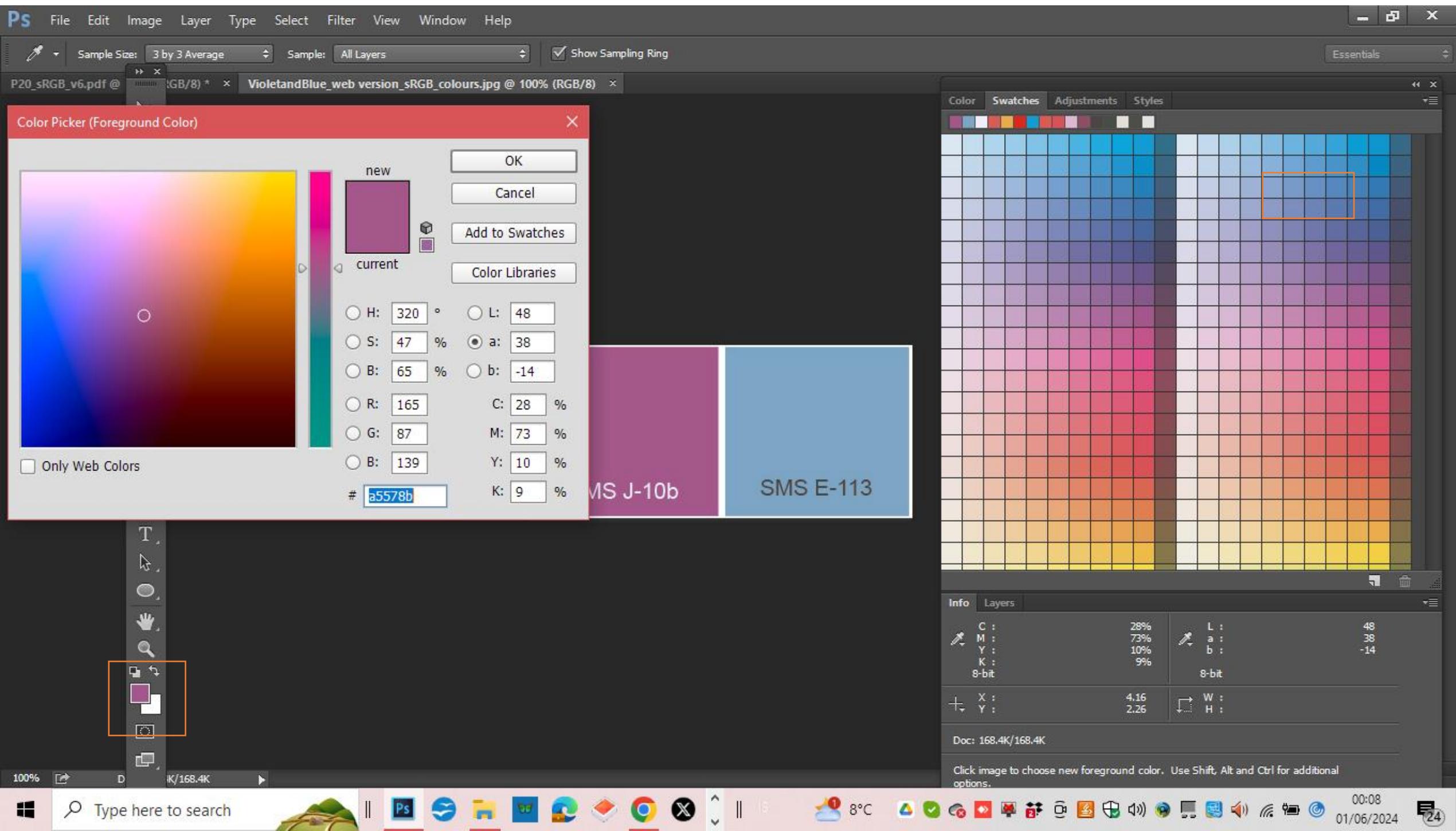




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matching system

Pick your first colour with your eyedropper and then open your colours.



The screenshot displays the Adobe Photoshop interface. The Color Picker dialog box is open, showing a color gradient and various color models. The current color is a purple hue with the hex code #a5578b. The Swatches panel on the right shows a grid of color swatches, with a blue swatch highlighted. The Info panel at the bottom right displays the color values for the selected swatch.

Color Model	Value
H (Hue)	320 °
S (Saturation)	47 %
B (Brightness)	65 %
R (Red)	165
G (Green)	87
B (Blue)	139
C (Cyan)	28 %
M (Magenta)	73 %
Y (Yellow)	10 %
K (Black)	9 %
L (Lightness)	48
a (Alpha)	38
b (Beta)	-14

Color Picker (Foreground Color) dialog box shows the following values:

- new: #a5578b
- current: #a5578b
- H: 320 °
- S: 47 %
- B: 65 %
- R: 165
- G: 87
- B: 139
- L: 48
- a: 38
- b: -14
- C: 28 %
- M: 73 %
- Y: 10 %
- K: 9 %

Swatches panel shows the following color swatches:

- MS J-10b
- SMS E-113

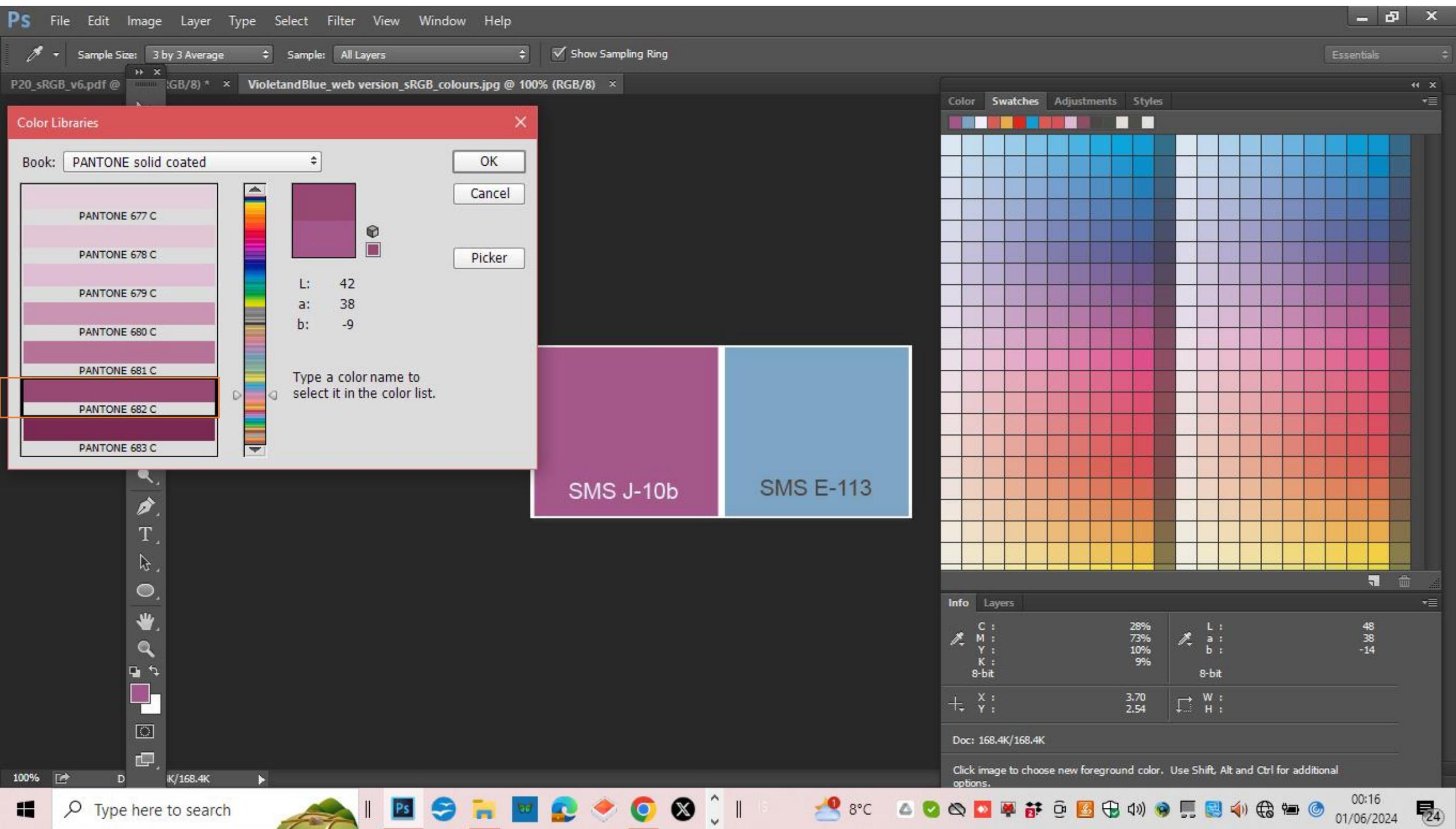
Info panel shows the following color values:

Color Model	Value
C (Cyan)	28%
M (Magenta)	73%
Y (Yellow)	10%
K (Black)	9%
8-bit	8-bit
X (X-axis)	4.16
Y (Y-axis)	2.26
L (Lightness)	48
a (Alpha)	38
b (Beta)	-14
W (Width)	
H (Height)	



SPOT
matching system

Select „Color Libraries“ and select „Pantone Solid Coated“.
The closest colour will appear, PMS 682C in this case.



The screenshot shows the Adobe Photoshop interface. The 'Color Libraries' panel is open, displaying the 'PANTONE solid coated' book. The list of colors includes PANTONE 677 C, 678 C, 679 C, 680 C, 681 C, 682 C, and 683 C. The color PANTONE 682 C is highlighted with a red box. To the right, a color picker shows the selected color with its Lab values: L: 42, a: 38, b: -9. Below the color picker, two color swatches are shown: SMS J-10b (purple) and SMS E-113 (blue). The Photoshop interface also shows the 'Color' panel with a color grid and the 'Info' panel displaying the color's CMYK and Lab values.

Color	L	a	b
PANTONE 677 C			
PANTONE 678 C			
PANTONE 679 C			
PANTONE 680 C			
PANTONE 681 C			
PANTONE 682 C	42	38	-9
PANTONE 683 C			

Color	L	a	b
SMS J-10b	42	38	-9
SMS E-113			

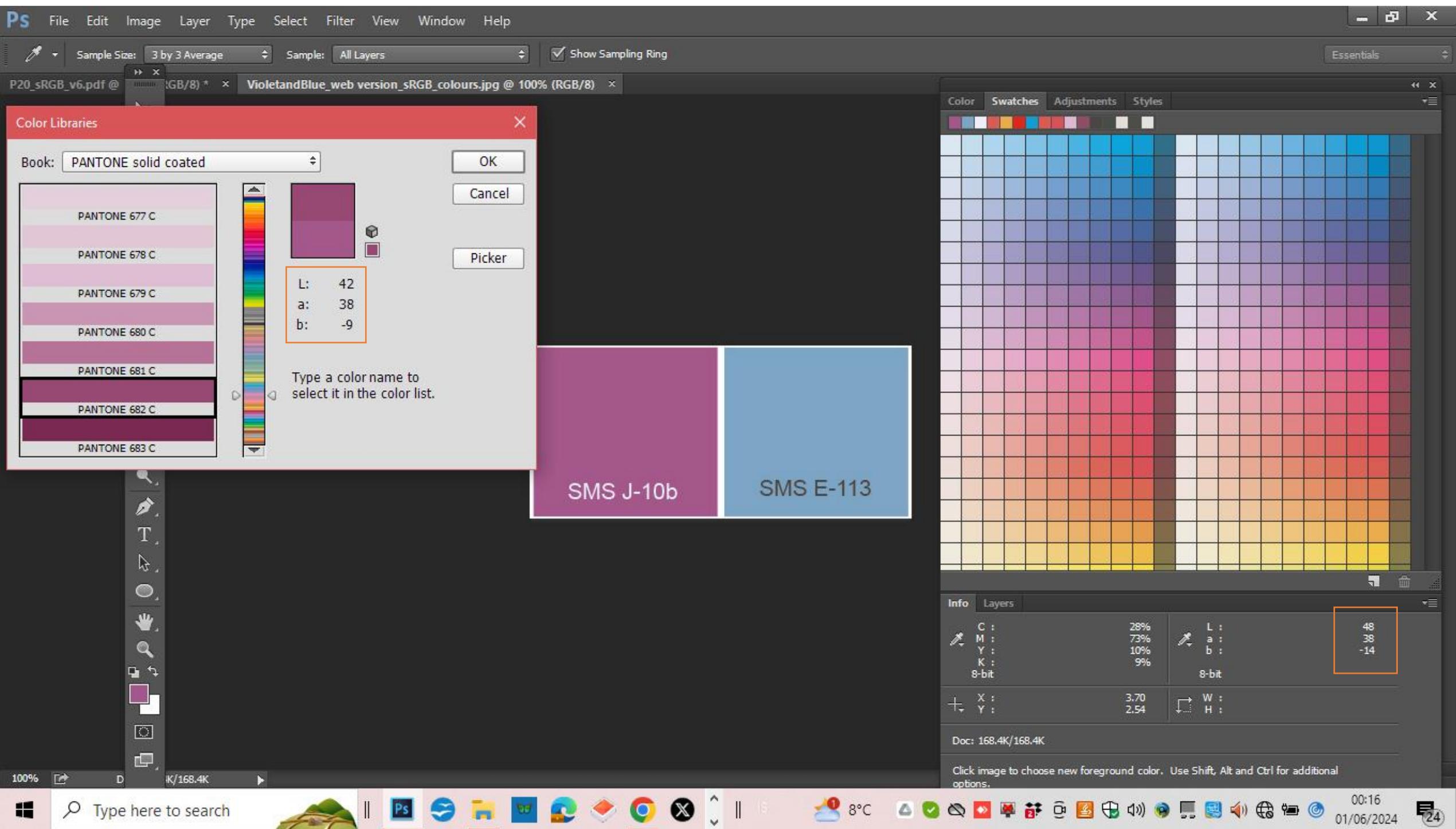
Color	C	M	Y	K	8-bit	L	a	b	8-bit
Selected Color	28%	73%	10%	9%		42	38	-14	



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matching system

It is not perfectly identical to your SMS colour - but it is the closest standard Pantone C colour for printing on coated paper.



The screenshot shows the Adobe Photoshop interface with the 'Color Libraries' panel open. The 'Book' is set to 'PANTONE solid coated'. The selected color is PANTONE 682 C, with Lab values L: 42, a: 38, and b: -9. Below the panel, two color swatches are shown: SMS J-10b (purple) and SMS E-113 (blue). The 'Color' panel on the right shows a color grid. The 'Info' panel at the bottom right shows the Lab values for the selected color: L: 48, a: 38, b: -14.

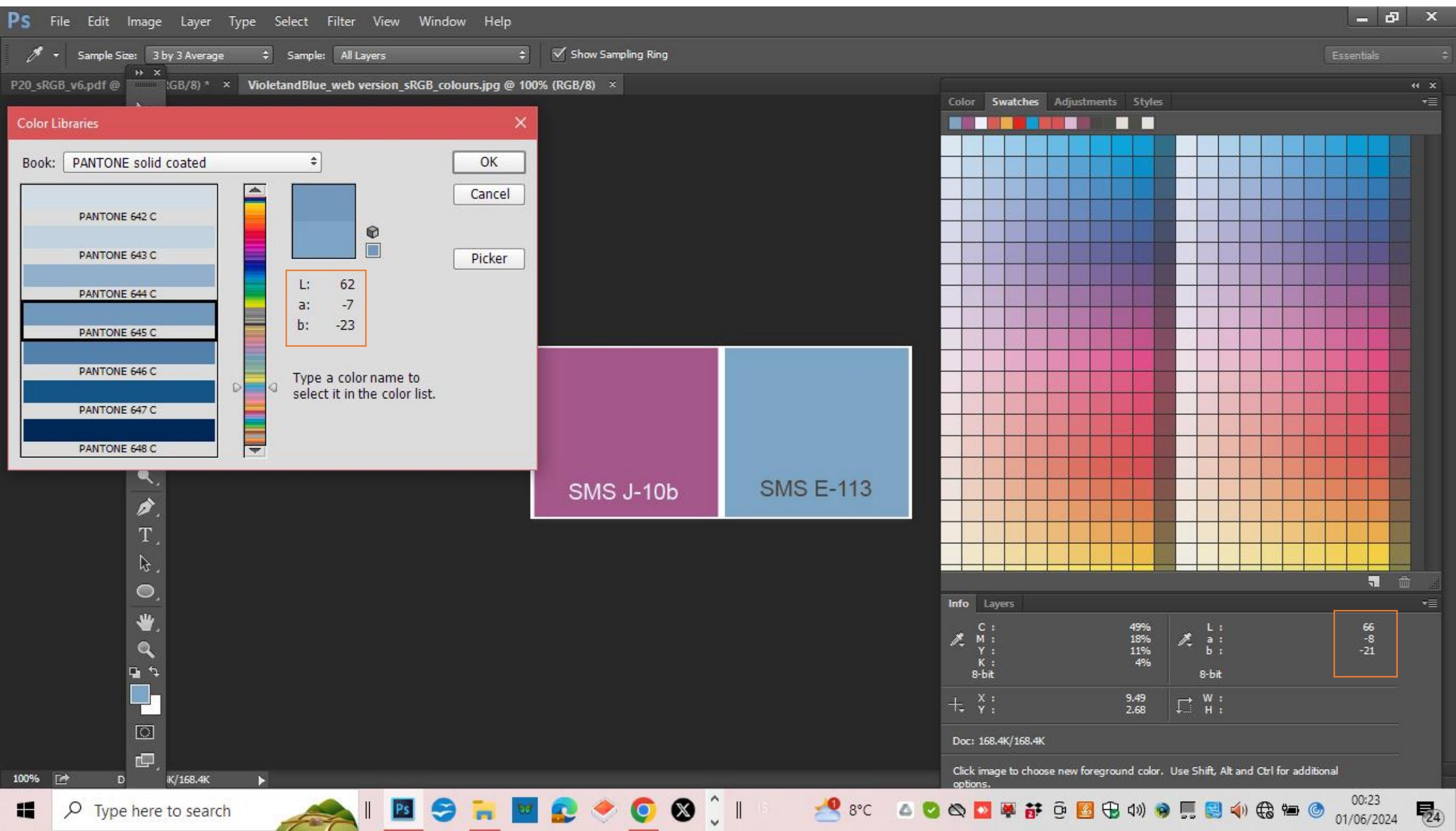
Color	L	a	b
PANTONE 682 C	42	38	-9
SMS J-10b	42	38	-9
SMS E-113	42	38	-9
Selected Color (Info Panel)	48	38	-14



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matching system

Now repeat this procedure with your other colour(s) -
- the light blue colour in our example.
The closest Pantone C colour in this case is PMS 645 C.



The screenshot displays the Adobe Photoshop interface with the following elements:

- Color Libraries Panel:** Shows the 'PANTONE solid coated' book. The list includes PANTONE 642 C, 643 C, 644 C, 645 C, 646 C, 647 C, and 648 C. The 'Picker' button is visible.
- Color Picker:** Shows the selected color with Lab values: L: 62, a: -7, b: -23.
- Color Swatches Panel:** Displays a grid of color swatches. The selected color is highlighted in the grid.
- Info Panel:** Shows the color's Lab values: L: 66, a: -8, b: -21.
- Color Calibration Panel:** Shows two color calibration targets: SMS J-10b (purple) and SMS E-113 (light blue).

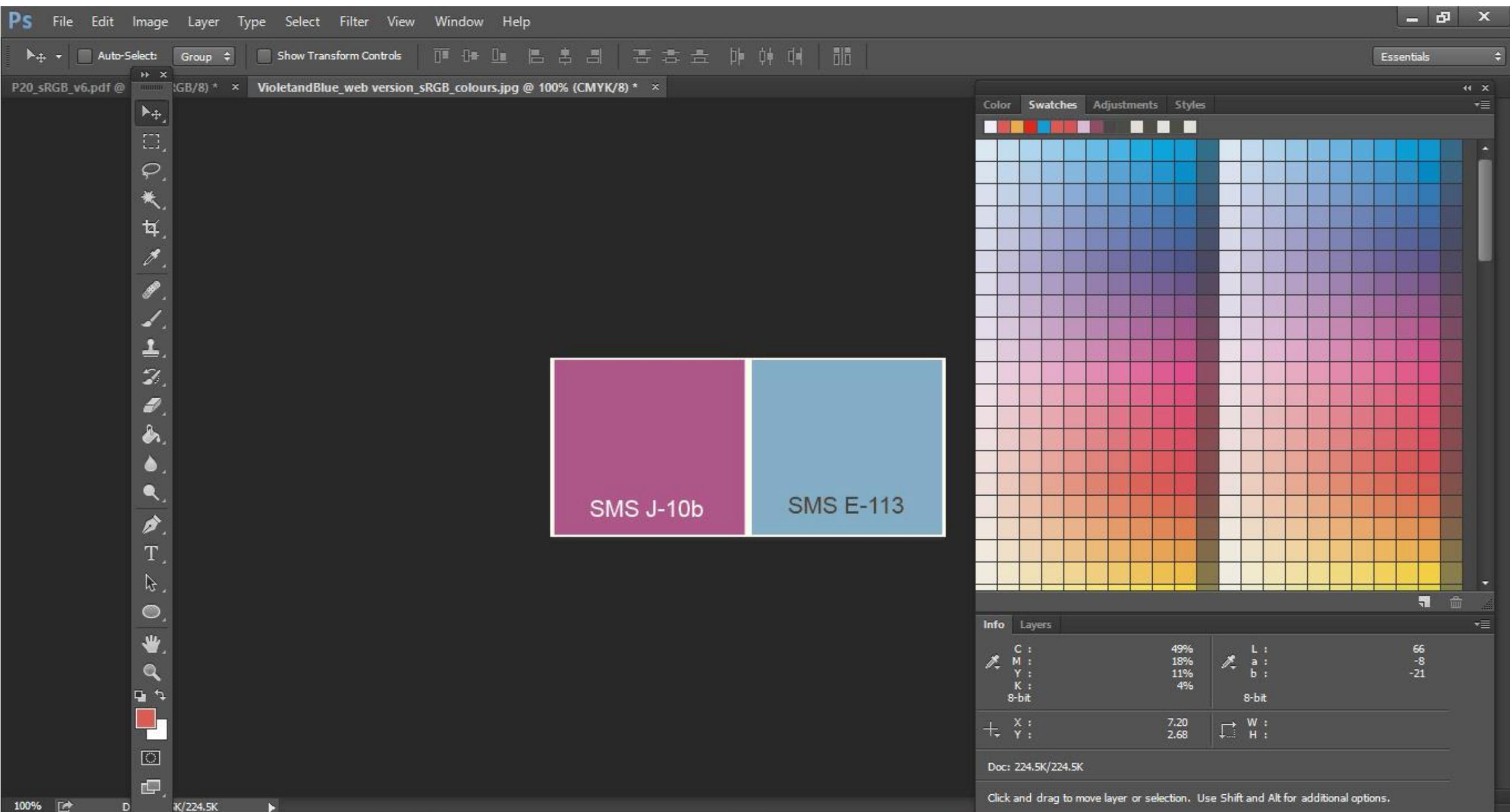
The Photoshop interface also shows the menu bar (File, Edit, Image, Layer, Type, Select, Filter, View, Window, Help), the toolbar, and the status bar at the bottom.



S P O T

matching system

Now let's see which Pantone colours may be suited for printing on uncoated paper to match your SMS colours as closely as possible.

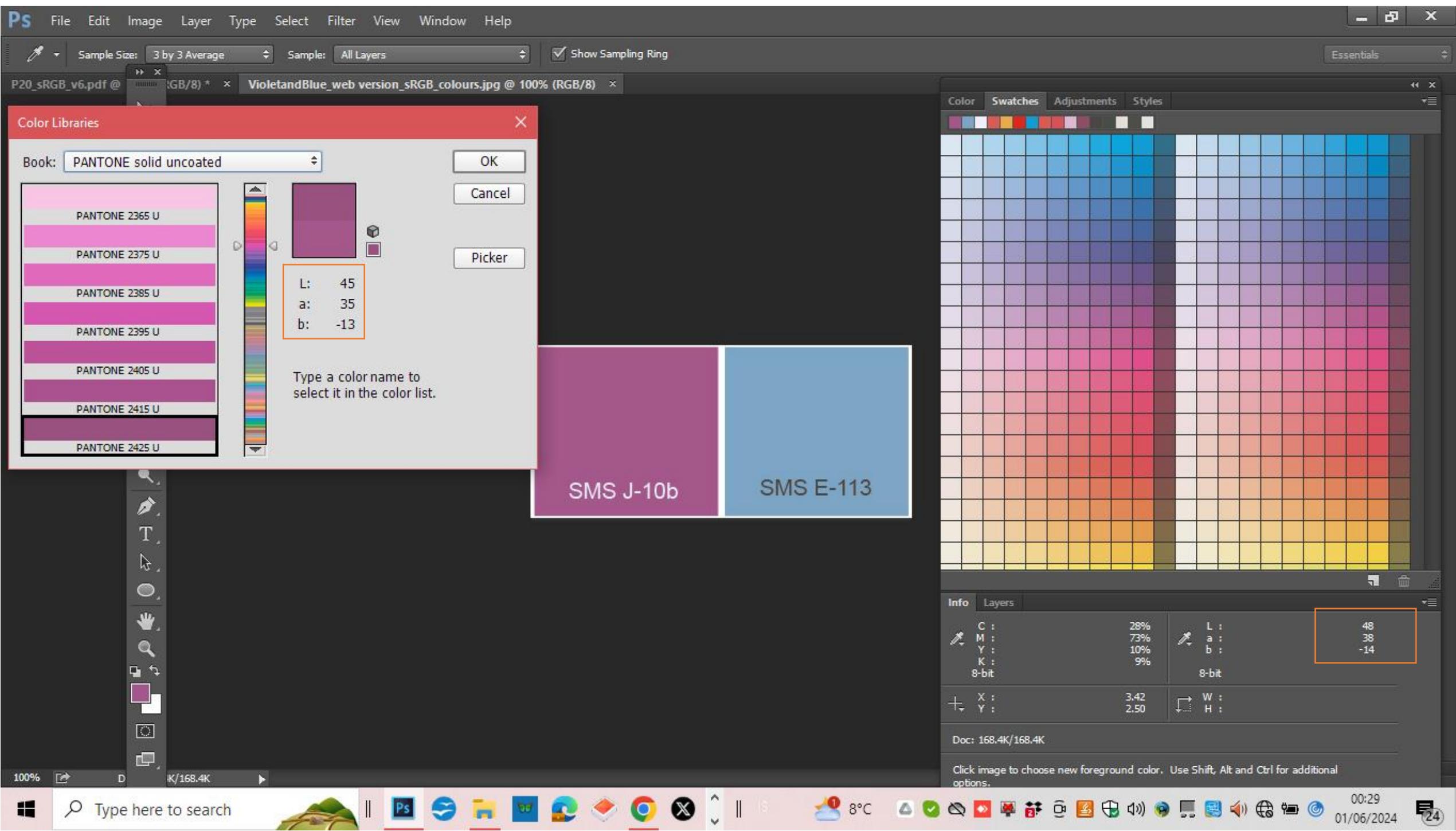




SPOT

matching system

Now select the PANTONE Solid Uncoated colour book.
The closest standard Pantone colour for printing
on uncoated paper is in this case PMS 2425 U.



The screenshot shows the Adobe Photoshop interface with the Color Libraries panel open. The 'Book' is set to 'PANTONE solid uncoated'. The color list shows PANTONE 2425 U selected. The L*a*b* values are L: 45, a: 35, b: -13. The Info panel shows the current color's L*a*b* values as L: 48, a: 38, b: -14. Two color swatches are shown: SMS J-10b (purple) and SMS E-113 (blue).

Color Libraries

Book: PANTONE solid uncoated

PANTONE 2365 U
PANTONE 2375 U
PANTONE 2385 U
PANTONE 2395 U
PANTONE 2405 U
PANTONE 2415 U
PANTONE 2425 U

L: 45
a: 35
b: -13

Type a color name to select it in the color list.

SMS J-10b SMS E-113

Info

C :	28%	L :	48
M :	73%	a :	38
Y :	10%	b :	-14
K :	9%		
8-bit		8-bit	

X : 3.42
Y : 2.50
W :
H :

Doc: 168.4K/168.4K

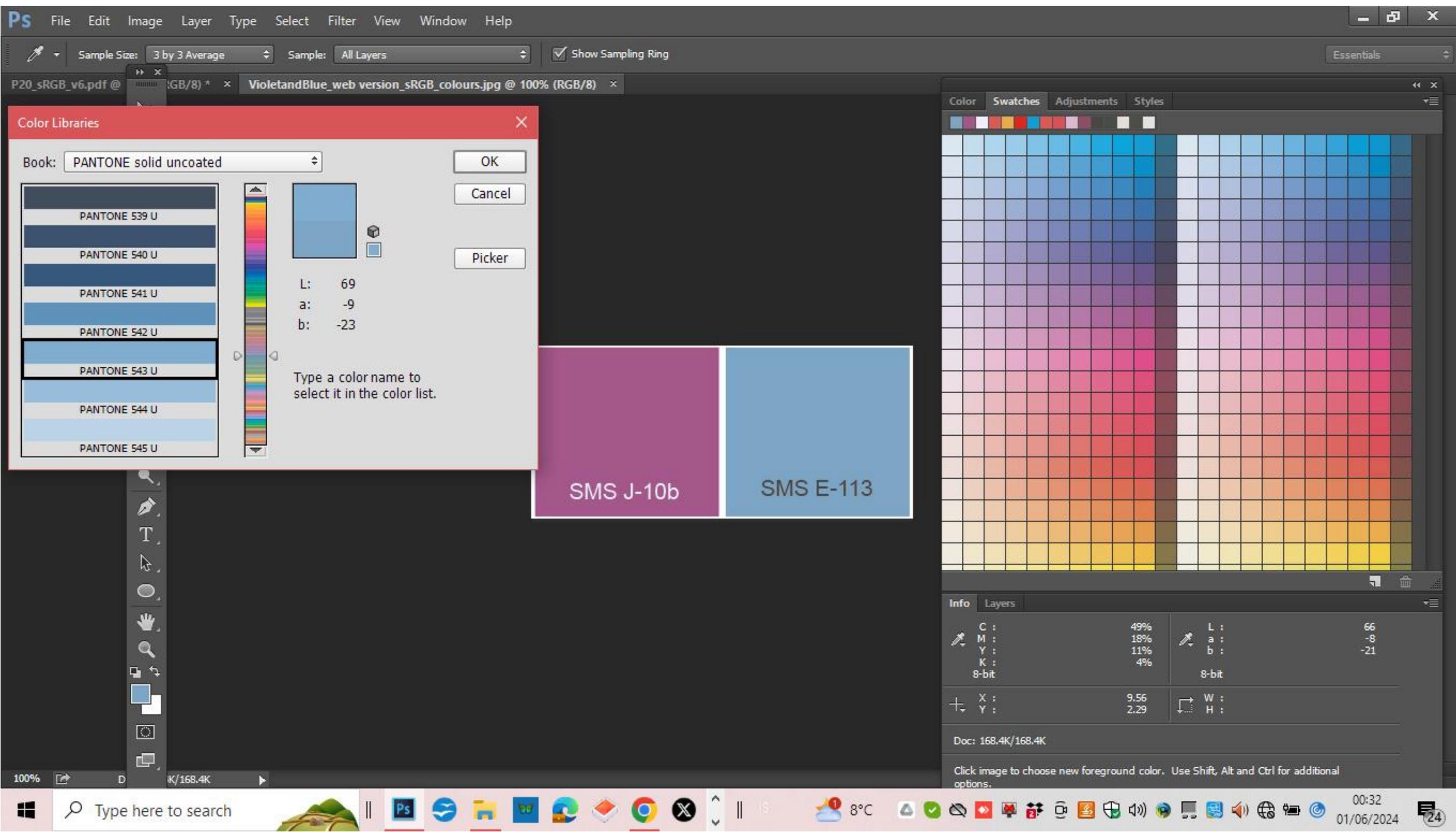
Click image to choose new foreground color. Use Shift, Alt and Ctrl for additional options.



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matching system

- and the closest light blue Pantone colour for printing on uncoated paper is PMS 543 U.
Not exactly the same LAB values - but quite close.



The screenshot shows the Adobe Photoshop interface with the Color Libraries panel open. The 'Book' is set to 'PANTONE solid uncoated'. The color list includes PANTONE 539 U, 540 U, 541 U, 542 U, 543 U, 544 U, and 545 U. The selected color, PANTONE 543 U, has the following LAB values: L: 69, a: -9, b: -23. Below the panel, two color swatches are shown: SMS J-10b (purple) and SMS E-113 (light blue). The Info panel at the bottom right displays the following data:

Property	Value	Property	Value
C	49%	L	66
M	18%	a	-8
Y	11%	b	-21
K	4%		
8-bit		8-bit	
X	9.56	W	
Y	2.29	H	

Doc: 168.4K/168.4K

Click image to choose new foreground color. Use Shift, Alt and Ctrl for additional options.



For precision branding of your SMS colours note:

Besides converting your SMS colour by yourself to the closest standard colour from another colour library, if you need to manufacture clothes or shoes or any other tangible product, or say, if you want to paint your headquarters in your SMS colours, you have 2 other options, that are suggested to keep your SMS colours as correct as possible in the analog world.

This is recommended if the colours you found by yourself are not close enough to your SMS colours in your opinion, if you simply don't know what colour system your printer or manufacturer is using, - or if you don't have access to the colour palette from within your application.



For precision branding of your SMS colours note:

1) For more advanced manufacturers:

Send them the LAB value of your SMS colours along with your sRGB colours in PNG format (not TIFF/TIF) by email.

For indoor usage in normal LED lighting, ask them to ensure that the LAB value of the resulting colours be the same as your SMS colours, when measured with a 0/45 spectrophotometer, D50/2° viewing angle with the M2 condition selected (UV CUT).

For outdoor use, the M1 condition would be appropriate and for outdoor signs typically viewed from afar, a more appropriate measurement standard might be D65 lighting and a 10° viewing angle.

SMS subscribers may contact sms@spot-nordic.com for assistance in communicating the SMS colours correctly.

2) For less advanced manufacturers:

Send them a printed, certified SMS colour ticket with your SMS colours and ask them to match your colours manually in production.



For bigger brands consider SMS subscription

If you are approached by a big company, brand or institution that values visual consistency in their marketing, please consider subscribing them to SMS.

Included in the SMS subscription are all 5 SMS colour palettes in sRGB format (P20e, P20, P20o,, P20x and P20xo) that you use when setting up your design.

As an SMS subscriber it is also optional to have ANY colour or any logo converted to the SMS colour palette you want to use.

Once your customer has approved your design, you simply order the required variations of their SMS colours from sms@spot-nordic.com.

Spot-Nordic can contact Printshop(s) and manufacturers of SMS subscribers to find out where they stand from a technical point of view – whether they can in fact be trusted to print your SMS colours to standards – or not – see www.spotmatchingsystem.com/printers.

The cost of SMS subscription is EUR 800 per brand, per year.

Contact sms@spot-nordic.com to order, or for more information.



Before getting started on your first SMS colour project

Please study the difference between our Standard, ECO and MAX systems before you order your SMS system – see www.spotmatchingsystem.com/services

Follow the instructions at www.spotmatchingsystem.com/gettingstarted and make sure that you use the correct variation of your SMS colours for each occasion.

Experiment with your SMS colours, do a few conversions to different colour spaces to get used to working with SMS colours in your apps. Watch the LAB values as you do your conversions.

If you are working with RGB images in Adobe RGB colourspace, alongside your SMS CMYK colours, that is fine.

For CMYK printing, the SMS colours should always be in their final CMYK version and your Printer should leave them as they are but convert the RGB part of your design to the CMYK destination.

Contact sms@spot-nordic.com to order or for more information. If your Printer or your manufacturer has questions about SMS colours, ask them to contact us and we will be glad to assist.



Using the SMS ASE palettes

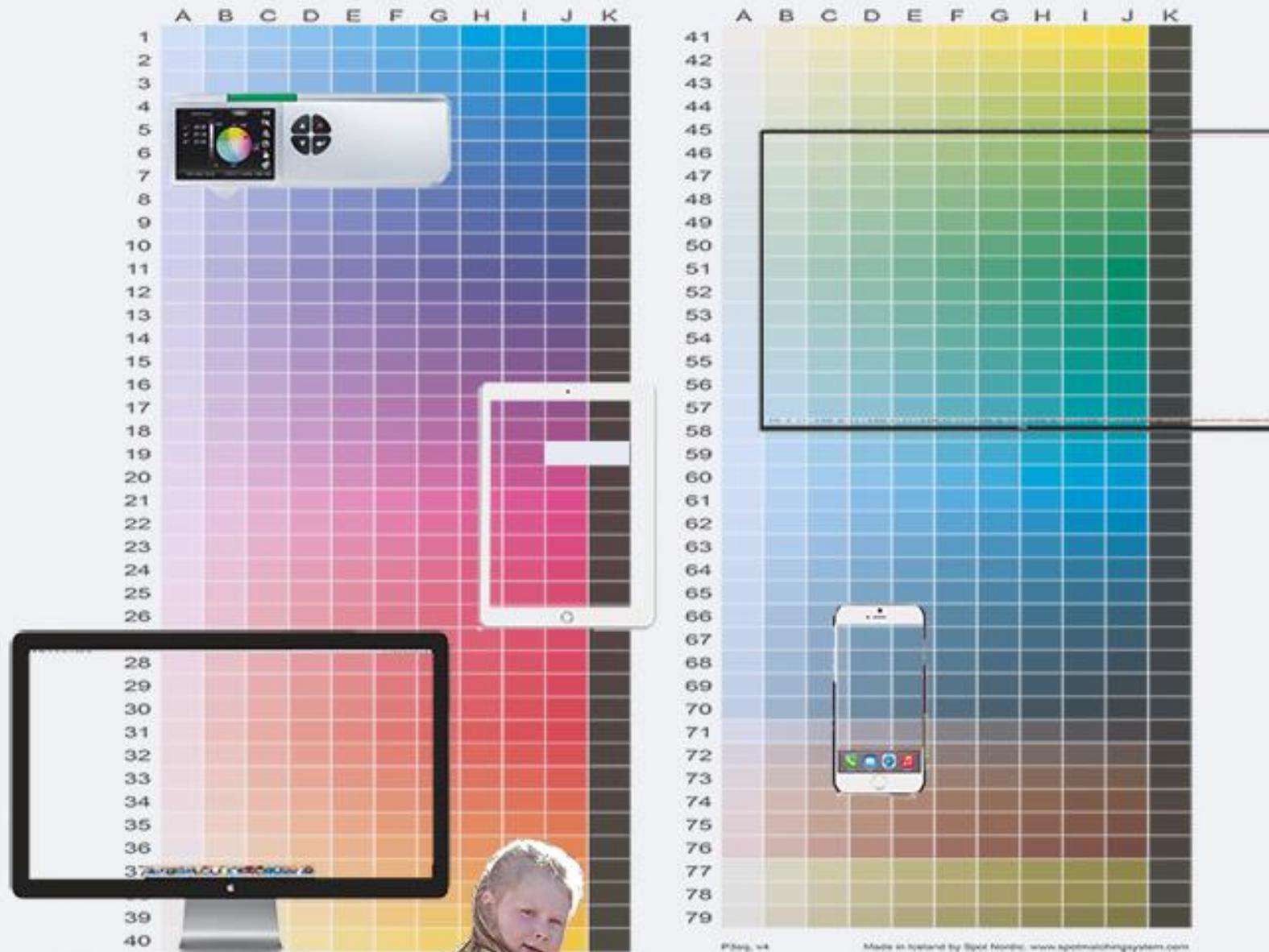
When you buy the SMS Standard v6 colour palette for instance, you get the palette both in PDF and ASE format.

If you are strictly a web designer, it is safe to use them directly as they are. If you need to keep track of which SMS colours you are using, we recommend using the SMS bitmaps, as described here.

The steps of this presentation may take some time, but they help you keep track of which documents are sRGB and which are in some other format – and of course to create all the colour palettes you need for each customer.

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8.690 Colours for Professional Design

www.spotmatchingsystem.com

Thank you for your attention!