# geological ROCK-COLOR CHART

with genuine Munsell® color chips



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2009 Year Revised | 2009 Production

This publication is a revision of the previously published Geological Society of America (GSA) Rock-Color Chart prepared by the Rock-Color Chart Committee (representing the U.S. Geological Survey, GSA, the American Association of Petroleum Geologists, the Society of Economic Geologists, and the Association of American State Geologists). Colors within this chart are the same as those used in previous GSA editions, and the chart was produced in cooperation with GSA.



x-rite

#### The Rock-Color Chart

The pages within this book are cleanable and can be exposed to the standard environmental conditions that are met in the field. This does not mean that the book will be able to withstand all of the environmental conditions that it is exposed to in the field.

For the cleaning of the colored pages, please make sure not to use a cleaning agent or materials that are coarse in nature. These materials could either damage the surface of the color chips or cause the color chips to start to delaminate from the pages.

With the specifying of the rock color it is important to remember to replace the rock color chart book on a regular basis so that the colors being specified are consistent from one individual to another. We recommend that you mark the date when you started to use the book. There is a space provided on the pevious page.

It is recommend that you replace the book after two years of use. This time frame is suggested based upon typical usage patterns and conditions.

#### **Purpose**

This chart is designed primarily for field use, although it indicates the range of rock colors for *all* purposes. Names for colors other than those shown on the chart can be found in *The Universal Color Language and Color Names Dictionary* (publication PB 265-225, available from the U.S. Department of Commerce, National Technical Information Services {NTIS}, Springfield, VA 22161).

### Using the chart

The chart is chiefly of value in describing the colors of medium-to fine-grained rocks but is also helpful in working with coarsegrained rocks. In describing very coarse-grained rocks, such as porphyritic granites, it is necessary to give the color of each mineral. The chart is designed to cover the range of the chief rock-forming minerals such as feldspar, guartz, mica, and hornblende. If the rock is not too coarse grained, a blending of the individual colors can be secured by spinning the specimen like a color disc or by looking at the rock from a short distance and thus getting a monotone that can be matched with the chips on the chart. The number and range of colors on the Rock-Color Chart are based on studies of more than 1,300 selected rock specimens collected from the United States. The colors of these rocks were plotted on the Munsell charts, which served as a basis for selecting the colors to be included. It is believed that the full range of rocks is covered by the chart, except possibly for very rare rocks of high chroma. A neutral mask is included with the chart for isolating individual colors.

#### Wet vs. Dry

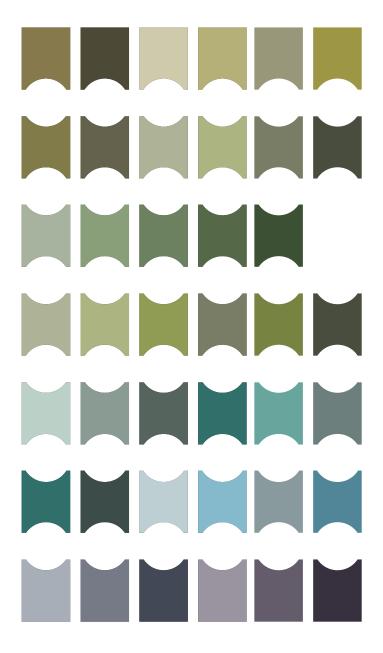
For most rock colors, the chart will serve for both wet and dry specimens. It will usually be found that wetting a rock specimen merely decreases the *value*, that is, makes the specimen darker, but does not change the *chroma*. Accordingly, the Rock-Color Chart includes colors as far as possible into the dark range in order to cover wet specimens as well as dry. For the first time, the chart includes glossy chips for some of the dark colors. This was necessary to retain color accuracy within the system of notation used in the chart.

5R 8/2 Grayish Pink	5R 7/4 Moderate Pink	5R 6/2 Pale Red	5R 6/6 Light Red	5R 5/4 Moderate Red	5R 4/2 Grayish Red
5R 4/6 Moderate Red	5R 3/4 Dusky Red	<b>5R 2/2</b> Blackish Red	5R 2/6 Very Dark Red	10R 8/2 Grayish Orange Pink	10R 7/4 Moderate OrangePink
10R 6/2 Pale Red	10R 6/6 Moderate Reddish Orange	10R 5/4 Pale Reddish Brown	10R 4/2 Grayish Red	10R 4/6 Modderate Reddish Brown	10R 3/4 Dark Reddish Brown
10R 2/2 Very Dusky Red	5Y 8/4 Moderate Orange Pink	5YR 7/2 Grayish Orange Pink	5YR 6/4 Light Brown	5YR 5/2 Pale Brown	5YR 5/6 Light Brown
5YR 4/4 Moderate Brown	5Y 3/2 Grayish Brown	5YR 3/4 Moderate Brown	5YR 2/2 Dusky Brown	10YR 8/2 Very Pale Orange	10YR 8/6 Pale Yellowish Orange
10YR 7/4 Grayish Orange	10YR 6/2 Pale Yellowish Brown	10YR 6/6 Dark Yellowish Orange	10YR 5/4 Moderate Yellowish Brown	10YR 4/2 Dark Yellowish Brown	10YR 2/2 Dusky Yellowish Brown
5Y 8/4 Grayish Yellow	5Y 7/2 Yellowish Gray	5Y 7/6 Moderate Yellow	5Y 6/4 Dusky Yellow	5Y 5/2 Light Olive Gray	5Y 5/6 Light Olive Brown



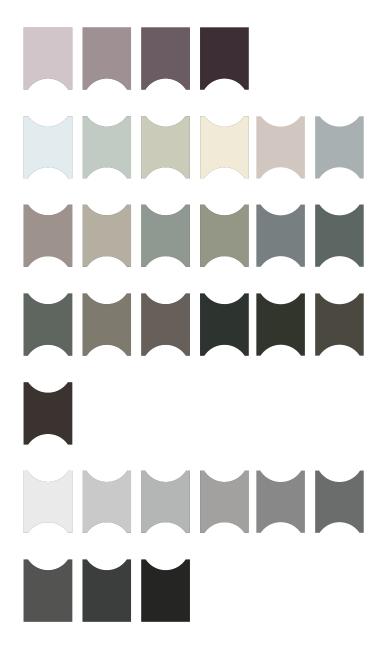
5Y 4/4 Moderate Olive Brown	5Y 3/2 Olive Gray	10Y 8/2 Pale Greenish Yellow	10Y 7/4 Moderate Greenish Yellow	10Y 6/2 Pale Olive	10Y 6/6 Dark Greenish Yellow
10Y 5/4 Light Olive	10Y 4/2 Grayish Olive	5GY 7/2 Grayish Yellow Green	5GY 7/4 Moderate Yellow Green	5GY 5/2 Dusky Yellow Green	5GY 3/2 Grayish Olive Green
10GY 7/2 Pale Yellowish Green	10GY 6/4 Moderate Yellowish Green	10GY 5/2 Grayish Green	10GY 4/4  Dark Yellowish Green	10GY 3/2 Dusky Yellowish Green	
5G 7/2 Pale Green	5G 7/4 Light Green	5G 6/6 Brilliant Green	5G 5/2 Moderate Yellow Green	5G 5/6 Moderate Green	5G 3/2 Dusky Green
10G 8/2 Very Pale Green	10G 6/2 Pale Green	10G 4/2 Grayish Green	5BG 7/2 Pale Blue Green	5BG 6/6 Light Blue Green	5BG 5/2 Grayish Blue Green
5BG 4/6 Moderate Blue Green	5BG 3/2 Dusky Blue Green	5B 8/2 Very Pale Blue	5B 7/6 Light Blue	5B 6/2 Pale Blue	5B 5/6 Moderate Blue
5PB 7/2 Pale Blue	5PB 5/2 Grayish Blue	5PB 3/2 Dusky Blue	5P 6/2 Pale Purple	5P 4/2 Grayish Purple	5P 2/2 Very Dusky Purple

2009 Revision



5RP 8/2 Pale Pink	5RP 6/2 Pale Red Purple	5RP 4/2 Grayish Red Purple	5RP 2/2 Very Dusky Purple		
5B 9/1 Bluish White	5G 8/1 Light Greenish Gray	5GY 8/1 Light Greenish Gray	5Y 8/1 Yellowish Gray	5YR 8/1 Pinkish Gray	5B 7/1 Light Bluish Gray
5YR 6/1 Light Brownish Gray	5Y 6/1 Light Olive Gray	5G 6/1 Greenish Gray	5GY 6/1 Greenish Gray	5B 5/1 Medium Bluish Gray	5G 4/1 Dark Greenish Gray
5GY 4/1 Dark Greenish Gray	5Y 4/1 Olive Gray	5YR 4/1 Brownish Gray	5G 2/1 Greenish Black	5GY 2/1 Greenish Black	5Y 2/1 Olive Black
5YR 2/1 Brownish Black					
N9 White	N8 Very Light Gray	N7 Light Gray	N6 Medium Light Gray	N5 Medium Gray	N4 Medium Dark Gray
N3 Dark Gray	N2 Grayish Black	N1 Black			

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### Refining the science of **Color.**

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