Updated: April 2017

Universal Supplemental Instruction: Revit Material Application
For PETERSEN ALUMINUM BIM Content

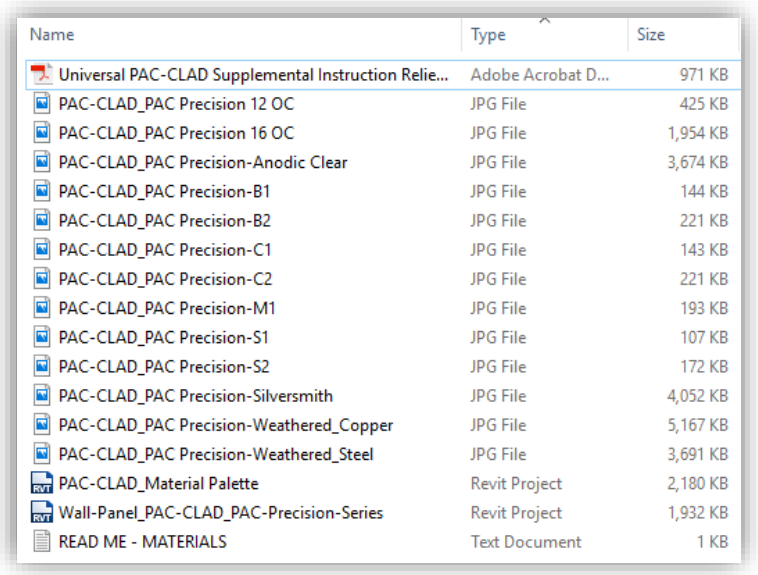
Purpose: This instructional document covers the recommended steps necessary to apply Petersen Aluminum's available colors to their products, using Autodesk Revit Families and Material tools.

Download the Revit Family, Relief Images and Material Color Palette

1. From the Manufacturer's product page (or other source location), **download** the ZIP folder for the PETERSEN ALUMINUM product that you wish to design with.

2. Also, from the Manufacturer's product page (or other source location), **download** the ZIP folder for the PAC-CLAD Material Palette.
    a. This ZIP files contains 3 necessary types of files, used to operate the PAC-CLAD families:
        i. the BIM model
        ii. associated relief images in .JPG format that are to be used in rendering
        iii. the *material palette.RVT* file, which contains colors available to the product

    b. Note: If you've downloaded Material Palette, associated relief images and Product RVT separately, skip the next step. It is recommended that the Revit family and associated images remain in the same folder.



Name	Type	Size
Universal PAC-CLAD Supplemental Instruction Relie...	Adobe Acrobat D...	971 KB
PAC-CLAD_PAC Precision 12 OC	JPG File	425 KB
PAC-CLAD_PAC Precision 16 OC	JPG File	1,954 KB
PAC-CLAD_PAC Precision-Anodic Clear	JPG File	3,674 KB
PAC-CLAD_PAC Precision-B1	JPG File	144 KB
PAC-CLAD_PAC Precision-B2	JPG File	221 KB
PAC-CLAD_PAC Precision-C1	JPG File	143 KB
PAC-CLAD_PAC Precision-C2	JPG File	221 KB
PAC-CLAD_PAC Precision-M1	JPG File	193 KB
PAC-CLAD_PAC Precision-S1	JPG File	107 KB
PAC-CLAD_PAC Precision-S2	JPG File	172 KB
PAC-CLAD_PAC Precision-Silversmith	JPG File	4,052 KB
PAC-CLAD_PAC Precision-Weathered_Copper	JPG File	5,167 KB
PAC-CLAD_PAC Precision-Weathered_Steel	JPG File	3,691 KB
PAC-CLAD_Material Palette	Revit Project	2,180 KB
Wall-Panel_PAC-CLAD_PAC-Precision-Series	Revit Project	1,932 KB
READ ME - MATERIALS	Text Document	1 KB

Figure 1 - Zipped file containing Revit model, relief image and material palette.

3. **Open or "unzip"** the ZIP folder by right-clicking on the file and extracting the file.
    a. **Save** the Revit family files, relief images, and material palette in a folder on your computer, or shared network folder location per your firm standards.
    b. It is recommended that the Revit family and associated images remain in either the same folder, or in close proximity.

Figure 2 - Extract zipped files to your hard drive

Transfer Products to Your Project

1. There are a couple of options to transfer the product from the Manufacturer's Revit file.
    a. A simple *Copy & Paste* will allow you to transfer the desired selected products.
    b. Also, using *Transfer Project Standards* will allow you to transfer all the possible configurations or types of a specific product.

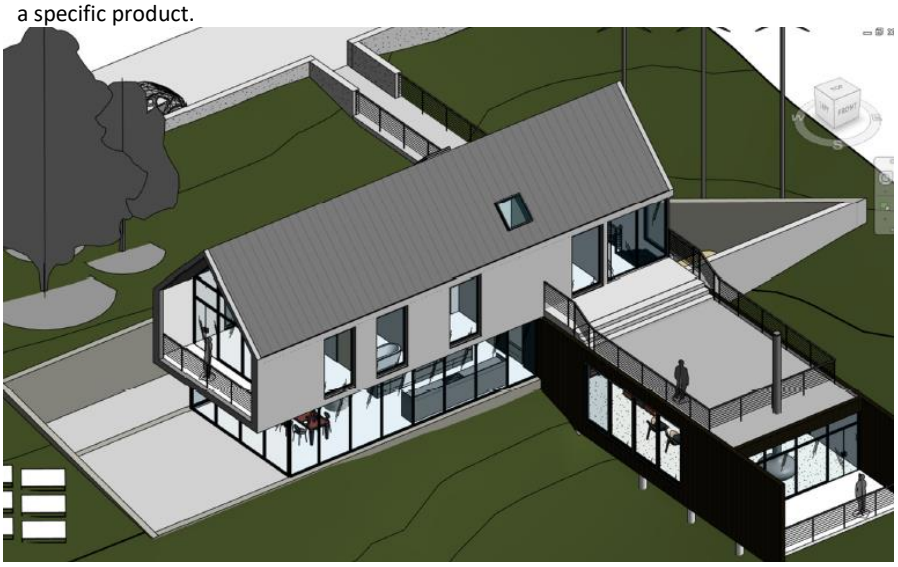


Figure 3 - Transfer selected products or all possible configurations of a specific product into your project.

Map a Relief Image to Your Object

1. Once the object is modeled, navigate to the **Material Browser** and select the object's material.

2. Select the **Appearance** tab and confirm that the appropriate relief image is mapped to the material in both the **Generic** section and the **Bump** section. (Highlighted below).
    a. The image is already scaled appropriately for both sections. Click **Apply** and **OK** as needed to apply the relief image to the material.

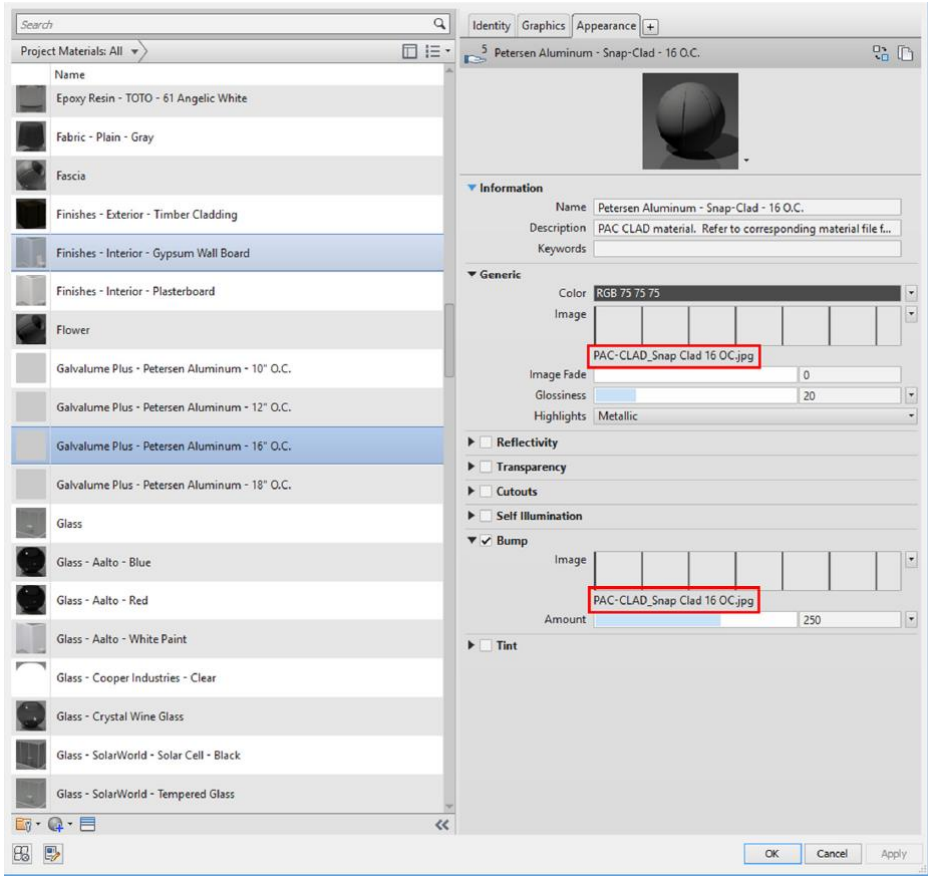


Figure 4 - Mapping a relief image to your object.

Apply a Color from the Material Palette

1. To apply a single color from the Petersen Aluminum material palette to the object, open the Revit file titled "*PAC-CLAD_Material Palette.rvt*".
    a. This file can also be located in the ZIP file. All colors available in the Petersen Aluminum color palette are visible upon opening.

2. Note the RGB value of the color needed (shown in the tag and type name of the color swatch), then enter it in manually:
    a. Select the **Graphics** tab and under the **Shading** section, enter the value for **Color**.
    b. Select the **Appearance** tab and under the **Generic** section, enter the same value for **Color.**
    c. Click **OK** to exit out of the **Material Browser** and other windows as needed.

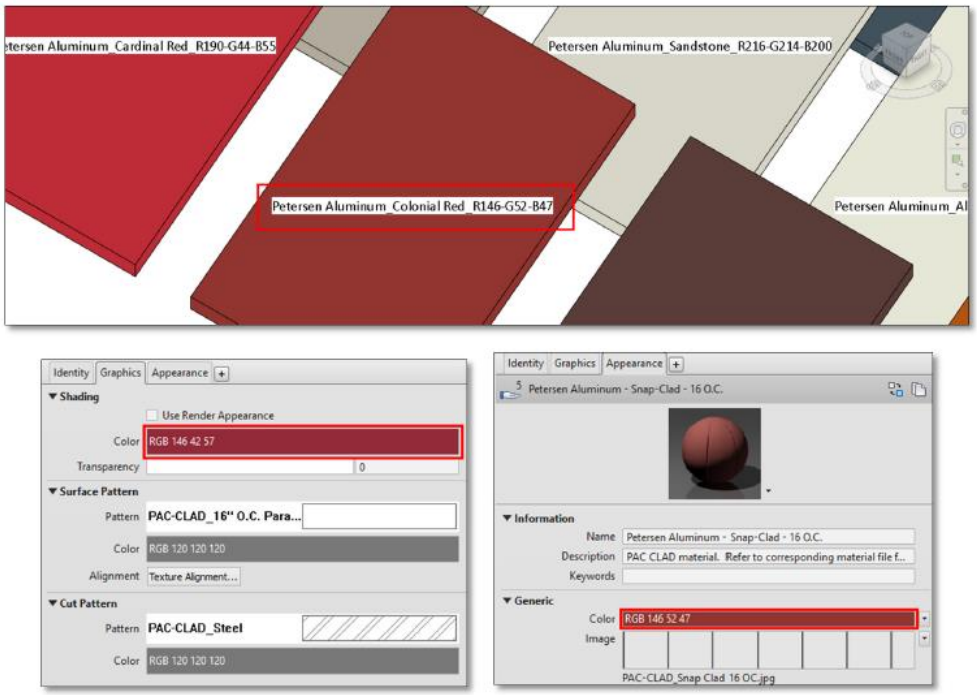


Figure 5 - Applying the color palette

3. For multiple colors, it's preferable to use the **Transfer Project Standards** function, found under the **Manage** tab. This will transfer only the materials from the color palette.
    a. **Note:** that this will transfer all the colors from the Petersen color palette file; these materials are only colors and are not representative of the actual products.

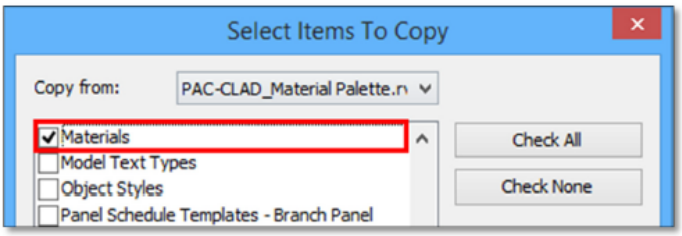


Figure 5 - Select Items to copy

4. In the **Material Browser**, locate the color that you want to use (color palette materials are listed as *Petersen Aluminum_[Color Name]_[RGB Value]*).

5. Click the **Appearance** tab and under the color selector, click on the desired color.

6. Click **Add** to add that color as a selectable color.

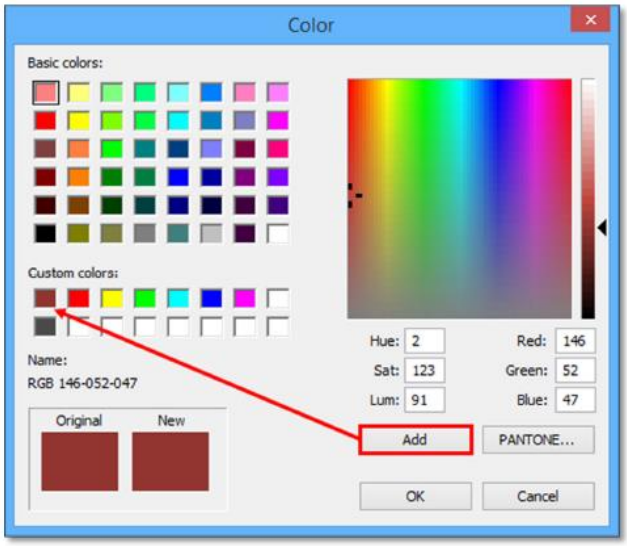


Figure 6 - Add custom colors

7. Navigate back to the Petersen Aluminum material to be edited.

8. Under the material's **Appearance** tab, select the color swatch, then select the color added from the previous step.

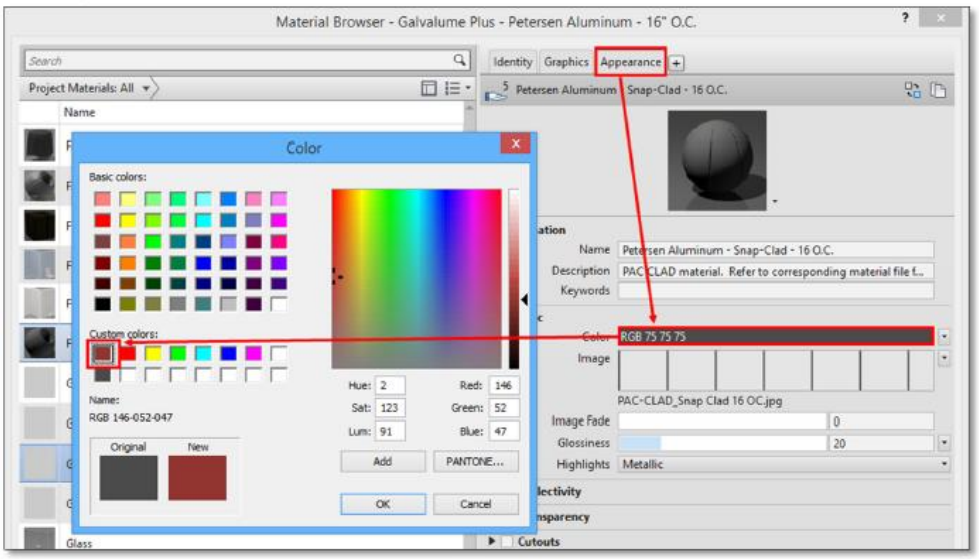


Figure 7 – Add the color to the Material Browser

9. Under the **Graphics** tab for that same material, check "**Use Render Appearance**".

10. Click **OK** to close the **Material Browser** and other windows as needed.
    a. **Note:** The RGB value may vary slightly from the original color, due to other material traits.

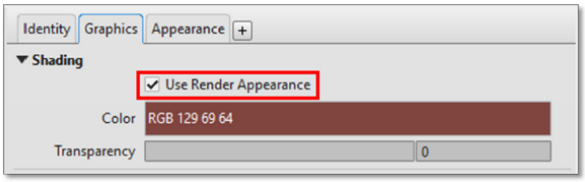


Figure 8

11. Verify that the material color has been applied to the object in both *shading* and *realistic* views.
    a. **Note:** Existing lighting and shadows may affect the appearance of the color.

Figure 9 - Material color applied to the object