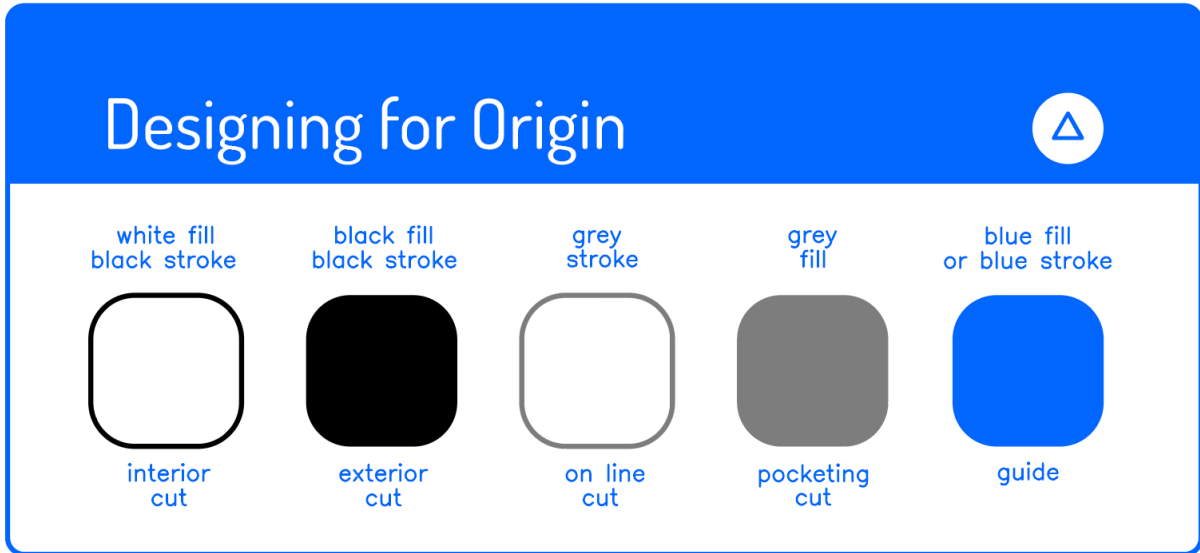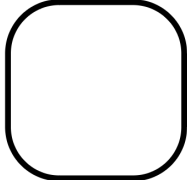# Cut Type Encoding

Origin accepts color-coded vector shapes indicating cut types saved as SVG files:

Designing for Origin

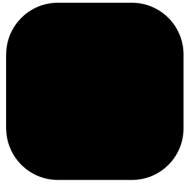| white fill black stroke	black fill black stroke	grey stroke	grey fill	blue fill or blue stroke
interior cut	exterior cut	on line cut	pocketing cut	guide

Below are the codes and the resulting cuts:

Note that the line width does not affect the width of the cut. A hairline or a 0.5" stroke in your design program will result in the same line.
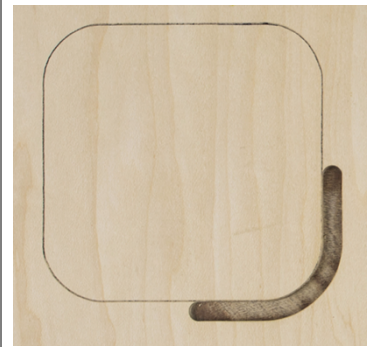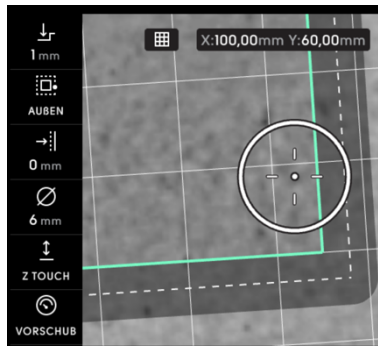
SVG Color code	On Tool Representation	Resulting Cut
white fill black stroke **interior cut** Use this to cut a through-hole with dimensions equal to the SVG shape.		

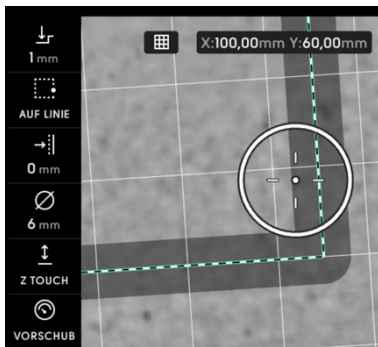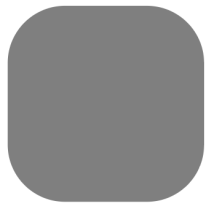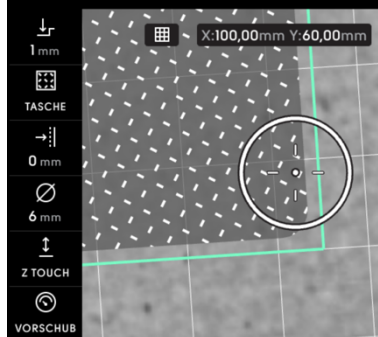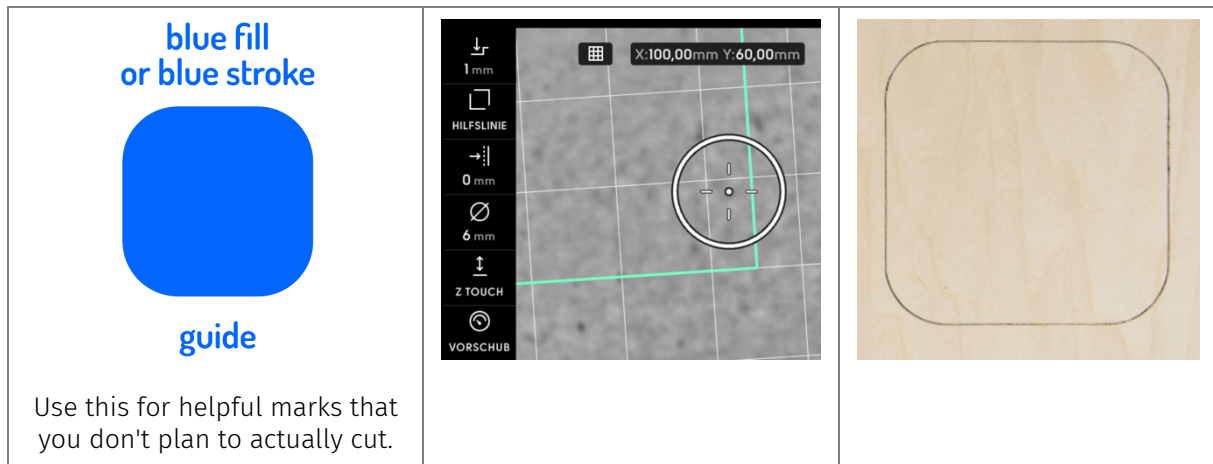|		
black fill **black stroke** **exterior cut** Use this to cut out a positive shape at the specified dimensions.	 1mm AUßEN →│ 0mm ∅ 6mm ↕ Z TOUCH ◎ VORSCHUB X:100,00mm Y:60,00mm	
grey stroke **on–line cut** Use this for engraving.	 1mm AUF LINIE →│ 0mm ∅ 6mm ↕ Z TOUCH ◎ VORSCHUB X:100,00mm Y:60,00mm	
grey fill **pocketing cut** Use this to remove material from within a shape to a depth that you specify on-tool. Note: pocketing cuts will automatically add border offset to ensure a clean cut. Pocket cuts need to be followed by an interior cut to accurately pocket the width of the final dimension.	 1mm TASCHE →│ 0mm ∅ 6mm ↕ Z TOUCH ◎ VORSCHUB X:100,00mm Y:60,00mm	
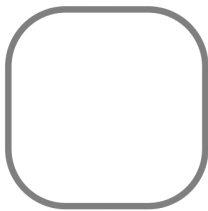
**blue fill
or blue stroke**

guide

Use this for helpful marks that
you don't plan to actually cut.

Open shapes (eg: a single, open-ended line) can be coded as a guide or online cuts. When cutting, Origin will center the cutter on the path.

Closed shapes (eg: a continuous circle or rectangle) can be coded as guide, online, interior, exterior, or pocket. This is because a closed shape is required for Origin to identify 'inside' and 'outside.'

Check out [this video](#) for more information.