

## 1.1: Viscosity

---

Viscous means “sticky” and the term viscosity refers to the way in which the chocolate flows. Chocolate comes in various viscosities, and the confectioner chooses the one that is most appropriate to his or her needs. The amount of cocoa butter in the chocolate is largely responsible for the viscosity level. Emulsifiers like lecithin can help thin out melted chocolate, so it flows evenly and smoothly. Because it is less expensive than cocoa butter at thinning chocolate, it can be used to help lower the cost of chocolate.

Molded pieces such as Easter eggs require a chocolate of less viscosity. That is, the chocolate should be somewhat runny so it is easier to flow into the moulds. This is also the case for coating cookies and most cakes, where a thin, attractive and protective coating is all that is needed. A somewhat thicker chocolate is advisable for things such as ganache and flavoring of creams and fillings. Where enrobers (machines to dip chocolate centers) are used, the chocolate may also be thinner to ensure that there is an adequate coat of couverture.

Viscosity varies between manufacturers, and a given type of chocolate made by one manufacturer may be available in more than one viscosity. Bakers sometimes alter the viscosity depending on the product. A vegetable oil is sometimes used to thin chocolate for coating certain squares. This makes it easier to cut afterwards.

### Chips, Chunks, and Other Baking Products

Content and quality of chocolate chips and chunks vary from one manufacturer to another. This chocolate is developed to be more heat stable for use in cookies and other baking where you want the chips and chunks to stay whole. Ratios of chocolate liquor, sugar, and cocoa butter differ. All these variables affect the flavor. Chips and chunks may be pure chocolate or have another fat substituted for the cocoa butter. Some high quality chips have up to 65% chocolate liquor, but in practice, liquor content over 40% tends to smear in baking, so high ratios defeat the purpose.

Many manufacturers package their chips or chunks by count (ct) size. This refers to how many pieces there are in 1 kg of the product. As the count size number increases, the size of the chip gets smaller. With this information, you can choose the best size of chip for the product you are producing.

Other chocolate products available are chocolate sprinkles or “hail,” used as a decoration; chocolate curls, rolls, or decorative shapes for use on cakes and pastries; and chocolate sticks or “batons,” which are often baked inside croissants.

---

This page titled [1.1: Viscosity](#) is shared under a [CC BY-NC-SA 4.0](#) license and was authored, remixed, and/or curated by [Sorangel Rodriguez-Velazquez](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.