

## MEASURING CUBIC DIMENSIONS

To determine the cubic dimensions of a shipment measure its height, width, and length. Then multiply those dimensions to obtain the cubic dimension of the shipment in inches.

For example, if the length is 22", the width is 21", and the height is 23", multiply them as follows:

$$22 \times 21 \times 23 = 10,626 \text{ cubic inches}$$

To convert cubic inches to cubic feet, divide the cubic inch total by 1728 (this is the number of cubic inches in one cubic foot.) For example:

$$10,626 / 1728 = 6.14 \text{ cubic feet}$$

Density can then be determined by dividing the weight of the shipment by the number of cubic feet. For example:

$$90 \text{ lbs} / 6.14 = 14.65 \text{ lbs per cubic foot}$$

## MEASURING PALLETIZED FREIGHT

If a shipment is palletized then the dimensions of the pallet are combined with the determine the cubic dimensions.

For example, if the pallet is 48" long, 40" wide, and 6" high, add the height to the height of the shipment (23") for a combined height of 29". Then multiply as before:

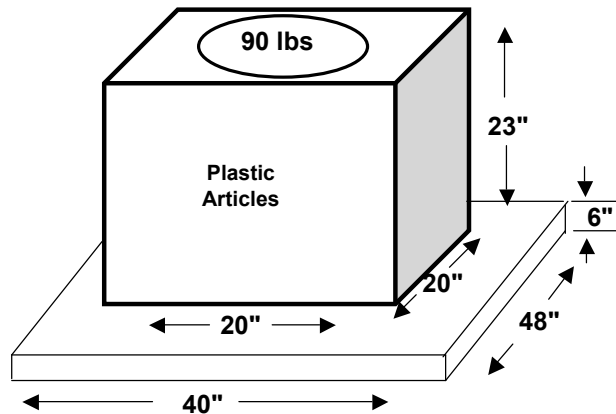
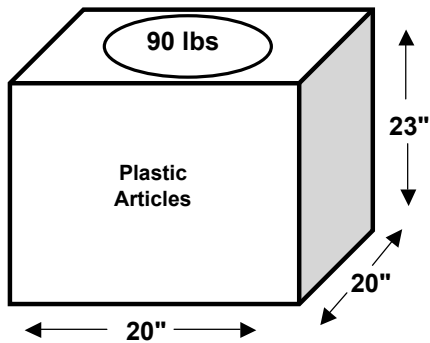
$$48 \times 40 \times 29 = 55,680 \text{ cubic inches}$$

Convert to cubic feet by dividing 55,680 by 1728.

$$55,680 / 1728 = 32.22 \text{ cubic feet}$$

The density then equals the weight 120 (90 lbs for the shipment and approximately 30 lbs for the pallet) divided by the cubic dimension.

$$120 / 32.22 = 3.72 \text{ lbs per cubic foot}$$



## CLASSIFICATION EXAMPLE

Example: Let's say the above product being shipped was "Plastic Articles", NMFC # 156600. If this were the case, then:

$$14.65 \text{ lbs per cubic foot} = \text{class 85}$$

$$3.72 \text{ lbs per cubic foot} = \text{class 250}$$

You can obtain the NMFC # of the product you ship by contacting Valley Cartage @ 800-657-6936 or by contacting our Rate Department at [rates@valleycartage.com](mailto:rates@valleycartage.com).