# **FREIGHT CLASS**



## WHAT YOU NEED TO KNOW ABOUT FREIGHT CLASSES

#### A RUNDOWN OF THE INDUSTRY'S LEADING STANDARDIZATION SYSTEM

nderstanding the freight classification system gives you an advantage in planning and executing incoming and outgoing shipments. You see freight class numbers on bills of lading and you may even know which freight class each of your commodities falls into.

Now it's time to learn why the cargo you ship is slotted into certain freight classes. If you can uncover the system behind determining freight classes, you have more control over costs, delays and care for your LTL shipment.

This document explains - in simple, what you need to know about freight class: what it is, who uses it, how goods will be classified, the importance of accurate classification and how you can achieve it.

### JUST THE FACTS ABOUT FREIGHT CLASSES

**WHAT:** The National Motor Freight Classifications (NMFC) place commodities into categories for shipping. These freight classifications give everyone in the shipping industry a baseline to work from while they organize and prepare less-than-truckload (LTL) freight for shipping.

**WHEN:** Starting with the Reed-Bulwinkle Act (yes, really) of the 1940s, motor carriers have been allowed to work together to standardize shipping rates and practices.

**WHO:** NMFC freight classes are set by the National Motor Freight Traffic Association, a nonprofit industry organization based in Alexandria, Virginia.

**WHY:** Technically, you don't have to use NMFC freight classes in your shipping. However, it is the widely accepted standard and most transportation companies use NMFC freight classes.

WHERE: Transportation companies throughout North America use NMFC freight classes.

**HOW:** Commodities are placed into one of 18 freight classes, based on a system that uses a number of criteria to determine a commodity's overall "transportability."

# NMFC FREIGHT CLASSES

CLASS	DESCRIPTION	
50	"Clean Freight" Fits on standard shrink-wrapped 4X4 pallet, very durable, over 50 lbs	
55	Bricks, cement, mortar, hardwood flooring 35-50 pounds	Highly dense and durable.
60	Car accessories & car parts 30-35 pounds	Items can be stacked on top.
65	Car accessories & car parts, bottled beverages, books in boxes 22.5-30 pounds	Relatively dense and durable - easy to load - fairly stackable and resistent to damage.
70	Car accessories & car parts, food items, automobile engines 15 to 22.5 pounds	
77.5	Tires, bathroom fixtures 13.5 to 15 pounds	
85	Crated machinery, cast iron stoves 12-13.5 pounds	
92.5	Computers, monitors, refrigerators 10.5-12 pounds	Moderately dense - prone to dents and damage - sensitive to water damage.
100	Boat covers, car covers, canvas, wine cases, caskets 9-10.5 pounds	
110	Cabinets, framed artwork, table saw 8-9 pounds	
125	Small Household appliances 7-8 pounds	
150	Auto sheet metal parts, bookcases, 6-7 pounds	
175	Clothing, couches stuffed furniture 5-6 pounds	Lower density - highly sensitive to water damage and crushing - stack on top.
200	Auto sheet metal parts, aircraft parts, aluminum table, packaged mattresses, 4-5 pounds	
250	Bamboo furniture, mattress and box spring, plasma TV 3-4 pounds	
300	Wood cabinets, tables, chairs setup, model boats 2-3 pounds	
400	Deer antlers 1-2 pounds	Very low density - difficult to load
500	Low Density or High Value Highest Cost Bags of gold dust, ping pong balls Less than 1 lbs.	- easily prone to damange.

## DO IT RIGHT THE FIRST TIME

#### ACCURATE FREIGHT CLASSIFICATIONS SAVE TIME AND MONEY

or any job to be successful, preparation is key. You worked to find the perfect carriers and freight lines. Before a carrier leaves with a shipment, you - the shipper must legibly identify the goods with the correct NMFC number on a bill of lading that aligns with the NMFC database. So you need to carefully classify your freight to make your cargo move smoothly.

#### YOU PAY A PRICE FOR BAD FREIGHT CLASSIFICATIONS

Everyone wants to pay the right price for their freight shipping, and not a penny more. Carriers refer to freight classes when setting their prices. Placing your cargo in a more expensive class is an obvious mistake, but trying to pay less by misclassifying your freight is a big blunder.

Here's the thing about properly classifying your freight—if you don't do it, someone else will. Your carrier will catch the problem while receiving, loading or, worse, during a customs check.

If the carrier has to alter your bill of lading, you could be looking at additional fees and costs related to delay.

#### **BE SURE YOUR CARGO GETS PROPER HANDLING BY FREIGHT CLASS**

When you assign a freight class to your cargo, you're literally telling your carrier how to handle it to protect the commodities packed inside.

If you're shipping bricks, you want the price benefit of allowing other things to be stacked on top. If it's cowboy hats, you'll probably worry about crushing and water damage.

#### **CONSIDER LIABILITY IF YOUR CARGO IS DAMAGED OR STOLEN**

Part of the freight classification system includes considering how likely a commodity is to be damaged or stolen in transit. This helps the carrier understand how delicately the freight must be handled.

Hopefully you're lucky and never have a problem with a shipment. If an unseen event does occur, you can protect yourself by proving you classified the freight correctly.

Your commodity's freight class also determines how much insurance you need to cover it. Bad things sometimes happen, but don't put yourself in a worse position by wrongly classifying your freight.

Whatever your commodity, NMFC freight classes also provide guidelines for appropriate packaging and loading. Help your carrier help you by providing an accurate freight class.

## HOW TO DETERMINE FREIGHT CLASSES

#### LEARN WHAT GOES INTO YOUR COMMODITY'S CLASSIFICATION

nderstanding the freight class system is simple. Commodities are placed into one of 18 categories, which determines overall cost and handling.

Figuring out how to classify your commodities is the more complex aspect and many businesses turn to software or vendors for help. Whether you take on the challenge yourself or hire in some help, understand why the commodities you're shipping are classified in certain ways.

#### IT ALL COMES DOWN TO 'TRANSPORTABILITY'

Carriers constantly look for efficiencies in LTL shipping, leveraging technology tools and entire teams to strategize ways to maximize space and weight in their transports.

When carriers look at the commodities you want to ship, they consider how easy or difficult it will be for them to move your cargo from point A to point B. This is your freight's "transportability."

#### FOUR FACTORS OF TRANSPORTABILITY

Let's take a look at each of the factors that impact a commodity's transportability and an example of each at play. Of course, multiple factors influence an item's freight class, but the examples offer one aspect in that decision-making.

## FOUR FACTORS OF TRANSPORTABILITY

#### DENSITY

**DESCRIPTION:** A commodity's density is how heavy it is relative to how much space it occupies.

**IMPORTANCE:** Carriers want to haul as much as possible during each trip, reaching their maximum weight and filling every square inch of space. Items that take up significant space but don't weigh very much get slotted into a higher freight class and therefore cost more to ship.

**DETERMINATION:** A commodity's density is measured in pounds per square feet, calculated by dividing the weight of the item in pounds by its volume in cubic feet.

#### **Example: Don't Be Dense**

You're a distributor of large household items. You're preparing two LTL shipments, one of microwaves and the other of mattresses. Along the freight class schedule, mattresses are Class 250 and microwaves are Class 125. Though mattresses are a larger item, they have less density than microwaves in the same physical area. For this reason, the mattresses likely will cost more to ship with the same carrier along the same line.

#### HANDLING

**DESCRIPTION:** How much care a commodity requires when being physically moved determines its ease of handling.

**IMPORTANCE:** Cargo goes through several steps before finding its final destination and along the way it encounters movement, adjustment and sometimes disruption. If a carrier needs to take greater care with your freight, it has higher handling requirements.

**DETERMINATION:** A major consideration of handling requirements lies in whether the cargo can be loaded by the carrier's standard machinery or needs specialized attention.

#### Example: Hard to Handle

Your company is exporting two types of flooring material, hardwood laminate and ceramic tile. Both are packed in similar boxes and have similar densities. However, the ceramic tile must be handled more carefully due to risk of breakage, putting it in Class 60, while the sturdier hardwood flooring is in the neighboring Class 55. It's a small distinction, but your carrier will know your Class 60 shipment needs more care than your Class 55.

#### STOWABILITY

**DESCRIPTION:** A commodity's stowability refers to how flexible it is to fit in with other LTL shipments.

**IMPORTANCE:** Your LTL shipments don't travel alone, and your carrier must decide the most appropriate place to slot your commodities for shipping. Items with poor stowability include those that cannot be stacked and hazardous materials that can only be shipped with certain other items.

**DETERMINATION:** Carriers take into account an item's size and shape, weight, nestability and hazardousness

#### **Example: Like Puzzle Pieces**

You run a company that helps people move overseas by packaging and shipping their possessions. One of your clients has an impressive collection of wilderness paintings and deer antlers. Both items require careful handling, but while the paintings can nest together, getting a Class 110 rating, the antlers have to be separated and barricaded, putting them a Class 400.

#### LIABILITY

**DESCRIPTION:** If an accident or theft takes place, liability is how much responsibility the carrier could face for ensuing monetary damages.

**IMPORTANCE:** When carriers take possession of your LTL shipment, they consider what potential negative consequences might come from transporting the commodities. They must consider their own liability in the event of a problem.

**DETERMINATION:** Commodities are assigned a liability rating based on its perishability, possible hazardousness or potential damage to adjacent items.

#### **Example: Fear of Food**

Your company imports ingredients for distribution to grocery stores and you're planning to bring in shipments of bottled soda and crates of apples. If the carrier encountered delays or unexpected climate changes, the soda would likely be fine while the apples could be put at risk. For this reason, the bottled soda gets a freight Class 65, while the apples get a Class 70.



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