



QUALITY a reputation for

Eastern Embers is a Premium Grade wood pellet manufactured by Shaw Resources in Shubenacadie, Nova Scotia.

Eastern Embers pellets are made primarily from spruce sawdust and shavings, sourced from a number of sawmills in Central Nova Scotia. Nova Scotia softwood, and particularly spruce, produces one of the finest pellets in the market today.

ASH. Our spruce fibre is inherently low in ash with levels typically running 0.35 percent to 0.45 percent. Shaw Resources has devised a storage, delivery and manufacturing process that ensures that subsequent ash contamination is minimized. Furthermore, our pellets are made from 100% white wood, with no bark added.

BTU. Because of the high sap content, softwood pellets generally burn hotter than hardwood pellets. Eastern Embers pellets burn consistently over 8,000 BTU/lb on an "as received" basis.

CHLORIDES. The Eastern Embers pellet contains salt levels only 1/10 allowed by the Pellet Fuels Institute standard.

CONSISTENCY. Our fibre is sourced from the same sawmills day in and day out. These mills process essentially the same species of wood, therefore, variances are minimal. Both in-house and independent lab testing ensure the Eastern Embers pellet is the most consistent and highest quality product available to the Atlantic Canadian and Northeastern U.S. market. Eastern Embers meet and surpass all Premium Grade standards of the Pellet Fuels Institute.



PO Box 60, Shubenacadie
Nova Scotia, Canada, B0N 2H0
(902) 758-2095 (Phone)
(902) 883-2220 (Metro Halifax)
1-800-607-2509 (Toll Free)
www.shawresources.ca
resources@shawresources.ca



Eastern Embers

Premium
Wood
Pellets

Everything
you wanted to
know about

Pellet Fuel



How Wood Pellets Are Made

Pellets can be made from a variety of materials, however the most common residential pellet is manufactured from wood fibre.

Typically, this fibre is in the form of sawdust or shavings produced as a by-product of the sawmill industry. The waste wood is dried to 8-12% moisture content then processed through a “hammer” mill which pulverizes the fibres into a finer consistency. This material is then fed into the centre of a large steel die containing thousands of ¼" diameter holes. There, a system of rollers “squeeze” the fibre against the walls of the die, forcing it through the holes. With the presence of the wood’s natural binder (lignin) and under extreme heat and pressure, the pellet is formed. The pellet is cooled and filtered to remove any dust and then packaged for the consumer market.

Today, pellet stoves are one of the fastest growing segments of the wood heat industry. Pellets, made from waste sawdust and shavings found in lumber mills, have proven to be the most environmentally responsible, convenient and efficient way to heat with wood

Wood Pellet Characteristics

Following is a brief description of a number of characteristics which determine the quality of your wood pellet fuel.

ASH. Like stickwood, pellets leave behind a certain percent of unburned ash. Excessive ash may be caused by impurities in the wood fibre and/or an imbalance (air to fuel ratio) in the appliance’s burning process. Soil, picked up by the wood through improper handling techniques, is the worst offender. Pellets containing bark will also burn with higher levels of residual ash. Bark tends to collect contaminants and may contain levels of ash 10 times higher than pure wood fibre.

Ash is measured as a percent of weight. Typically, residential pellets range between 0.3 and 0.7 percent ash, or on average, one-half of one percent of the pellet’s weight will remain unburned in the form of ash. This appears insignificant – but by burning just one bag of pellets, a quarter pound of ash may be deposited in the stove’s fire chamber. Generally this would require a clean-out every few days.

The Pellet Fuels Institute (PFI), the governing body of the industry, has developed fuel standards which classify any pellet with less than 1% ash as “Premium Grade”.

FINES (SAWDUST). Sawdust fines do not burn efficiently and may interfere with the flow of pellets through your stove.

The PFI standard states that a bag of pellets should contain less than 0.5 percent fines, by weight. Sawdust fines may be caused by improper screening at the manufacturer or breakdown of pellets through rough handling.

BTU. BTU is a measure of heating value. Typically, residential pellets burn at over 8,000 BTU per pound, or over 16,000,000 BTU per ton. This compares to a cord of hardwood which would generate approximately 14,000,000 BTU.

A common misconception in the industry is that hardwood pellets burn hotter than softwood pellets. With stickwood this of course is true, because of hardwood’s higher density. However, through the pelletizing process, hardwood and softwood fibres are brought to the same density. In fact, softwood pellets generally outperform hardwood pellets because of the high sap content which burns at extremely hot temperatures.

PELLET SIZE. Pellets are approximately ¼" in diameter and generally between ½" and 1½" long. Shorter pellets may burn very quickly and inefficiently, while very long pellets may cause bridging, blocking the fuel supply.

DENSITY. Ideal pellet density is greater than 40 pounds per cubic foot. Lower density pellets are not formed properly and will not deliver optimum heat. On the other hand, very dense pellets tend not to burn thoroughly and may also impede the fuel feed system. Density is determined by the manufacturing process.

SALT (CHLORIDE). Pellets with a high chloride content may cause rust and deterioration within the stove. Chloride levels are determined by the species of the wood and its environment. The PFI standard allows for chloride contents of less than 300 parts per million. Most pellets in our market, however, are under 100 ppm.

COLOUR. Pellet colour ranges from “tan” to “greyish-black”. Colour can be determined by species of wood, presence of bark, or in some cases “scorching” of the pellet as it is extruded through the die. Colour alone will not determine the quality of the pellet, although a dark pellet, resulting from a high blend of bark, may be of lower quality.

CONSISTENCY. Pellet consistency is a major goal in the industry. The same brand of pellet may burn differently at different times.

This occurs because most pellet manufacturers use a variety of wood species to produce their pellet, often sourced from a number of different sawmill operations. Furthermore, even amongst the same species, from the same location, certain wood properties may vary.

Without a consistent raw material, it is difficult to produce a consistent finished product. To compensate, most mills attempt to develop a “recipe” of blended materials.