

THE CASK TRADE GUIDE TO WHISKY CASKS

OAK, CHARRING, MATURATION AND APPRECIATION



Oak casks come in a variety of different sizes, from small quarter casks of 80 litres to huge sherry puncheons that can hold up to 500 litres.

The type of oak, size and age of cask, and its previous contents all have a huge impact on the final flavour and texture of a whisky.

Find out all you need to know about Casks in this guide!

About Casks

Beyond all of the flavours imparted by the distillery itself, there is one factor that has a crucial effect on the flavour of a whisky, and this is the cask in which it is matured.

The production process gives the whisky roughly 20-30% of its style and flavour, with the rest all being extracted from the oak. Oak is an extremely durable wood but is also slightly porous, allowing the cask to breathe. In humid conditions such as those found in Scotland, this allows a small amount of alcohol every year to evaporate into the air (known as the Angel's Share), but also draws the spirit deep into the wood. As temperatures fluctuate from month to month and year to year, the wood slowly expands and contracts. The spirit is drawn in and out of the oak, softening it and imparting flavour and colour.

A 'cooper' is in charge of assembling and maintaining the all-important casks. It takes many years to become a master cooper, as hand tools are still required. Thousands of casks a year require major repairs, with thousands more requiring re-charring.

Inside a maturing whisky cask



Charring

Whisky casks are commonly charred on the inside. Similarly to how the beneficial effects of oak ageing were discovered by accident, charring was most likely the unexpected result of a fiery mishap. The toasting of the oak re-activates many of its organic enzymes, caramelising the sugars and reinvigorating the vanillins and tannins.

The resulting layer of carbon acts as a charred filtration barrier that removes impure compounds such as sulphur from the whisky, and the resulting cracks and grooves encourage the spirit to penetrate even deeper into the wood, resulting in a much richer flavour and colour.

New-oak casks being charred for the first time; quite a spectacle.



Bourbon Barrel

As Bourbon by US law can only be matured in new oak casks, there is a plentiful supply of oak barrels from Kentucky ensuring close ties between the Scotch and Bourbon industry. Barrels are medium-sized casks that contain around 200 litres of spirit.

The majority of Scotch whisky is matured in bourbon barrels (also known as 'traditional' whisky casks). They are perfectly suited to maturing scotch whisky due to their ready availability and affordability. Furthermore, the bourbon that they previously held for 2-3 years softens the oak, ensuring a smoother and more subtle whisky.

Bourbon barrels are made exclusively from American Oak, which gives whisky a honeyed and vanilla characteristic. This flavour is imparted by natural sugars within the wood, as well as the chemical compound 'vanillin' that is also present in vanilla pods.

Below: bourbon barrels and sherry butts maturing at Glenfiddich



Hogshead

A hogshead is essentially a bourbon barrel with the addition of extra staves, creating a 250 bulk litre cask. Hogsheads are assembled in Scotland from disassembled barrel staves shipped from America, and give very similar flavour characteristics to barrels. Occasionally, hogsheads are seasoned with sherry to create a sherry hogshead.

Sherry Butt

Previous use in sherry production makes these casks extremely desirable as they impart a distinctive colour and strong rich flavour. Sherry butts are amongst the largest used in Scotch production at around 500 bulk litres, or 300-330 OLA. Sherry casks are traditionally made of European oak, which has a tighter grain than American oak and imparts a slightly drier, spicier characteristic. Flavours prevalent in the sherry that have been absorbed by the wood are imparted to the maturing whisky. For example, Pedro Xeminex casks give whisky a deep, rich, sweet flavour and dark colour, whereas Oloroso casks give a drier, nuttier flavour.



Other Cask Types:

Port Pipes

Port Pipes are European oak casks similar in size and shape to Sherry casks. They impart port wine's sweetness and tannin, often resulting in a sweet, rich and silky final product.

Wine Barriques

Previously used in the production of wine, most of these casks are made from European oaks. Barriques from renowned vineyards, such as first-growth Bordeaux, can be extremely desirable.