

# OEM APPROVALS

## ENGINE MANUFACTURERS ASSOCIATION

The Engine Manufacturers Association (EMA) is an international membership organisation representing the interests of manufacturers of internal combustion engines.

Biodiesel fuels are methyl or ethyl esters derived from a broad variety of renewable sources such as vegetable oil, animal fat and cooking oil. Biodiesel fuels are produced by a process called transesterification, in which the various oils are converted into methyl esters through a chemical reaction with methanol in the presence of a catalyst, such as sodium or potassium hydroxide.

'Soy Methyl Ester' diesel (SME), derived from soybean oil, is the most common Biodiesel in the US. 'Rape Methyl Ester' diesel (RME), derived from rapeseed oil, is the most common Biodiesel fuel available in Europe. Collectively, these fuels are sometimes referred to as 'Fatty Acid Methyl Esters' (FAME).

Biodiesel is produced in a pure form (100% is referred to as B100 or neat Biodiesel) and may be blended with petroleum-based diesel fuel. Such Biodiesel blends are designated as BXX, where XX represents the percentage of pure Biodiesel contained in the blend (e.g. 20% = B20)

Depending on the biomass feedstock and the process used to produce the fuel, B100 fuels should meet the requirements of either ASTM D6751 or an approved European specification such as EN 14214.

Based on current understanding of Biodiesel fuels and blending with petroleum-based diesel fuel, EMA members expect that blends up to a maximum of B5 should not cause engine or fuel system problems, provided the B100 used in the blend meets the requirements of ASTM D6751 or EN 14214. If blends exceeding B5 are desired, vehicle owners and operators should consult their engine manufacturer regarding the implications of using such fuel.

The EMA, EPA and National Biodiesel Board (US) are currently working on a B20 Biodiesel specification.



FUEL FOR OUR FUTURE