

# Mooring lines made with bio-based Dyneema® fiber.

For safe, reliable and sustainable mooring operations.

## 3 reasons to choose mooring lines with bio-based Dyneema® fiber.



Durability

Dyneema® SK78 is engineered to overcome the main failure mechanisms of a fiber rope.



Trusted Strength

Dyneema® SK78 fiber offer the highest reliability from day one onwards and a superior service life compared to other HMPE.

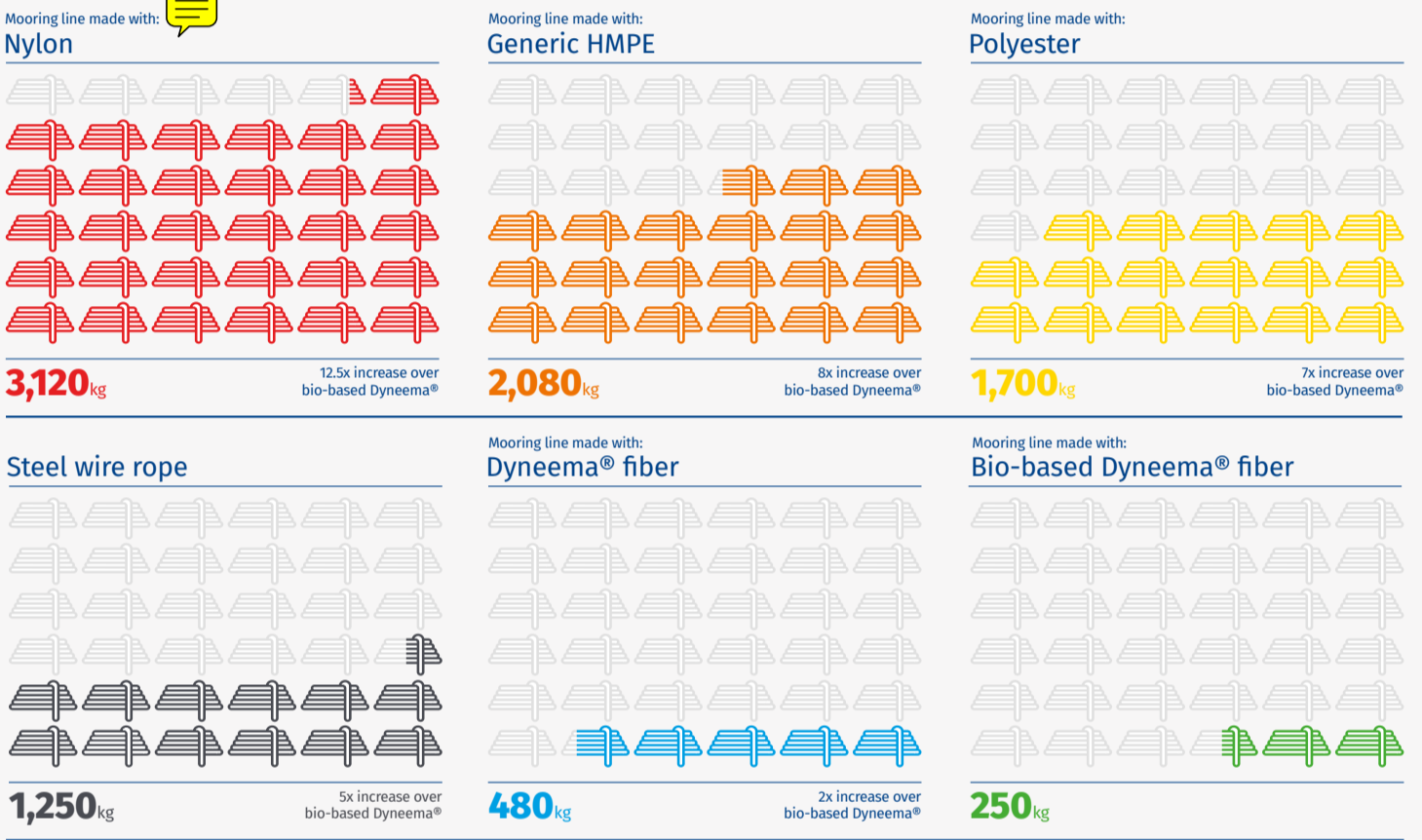


Sustainable

For every 100 meters, mooring lines made with bio-based Dyneema® have a carbon footprint that's more than 1800 kgs CO<sub>2</sub> less than generic HMPE.

## Dyneema® outperforms all competing alternatives.

### CO<sub>2</sub> equivalent emissions cradle to gate per 100 meter mooring line (44 mm)



## Carbon footprint reduction.

Reduces	Compared to	Smartphones charged	Tree seedlings grown for 10 years
230 kg CO <sub>2</sub>	Conventional Dyneema®	29 K	4
1,000 kg CO <sub>2</sub>	Steel wire rope	128 K	17
1,450 kg CO <sub>2</sub>	Polyester	184 K	24
1,830 kg CO <sub>2</sub>	Generic HMPE	233 K	30
2,870 kg CO <sub>2</sub>	Nylon	366 K	48

Every 100 meters of mooring lines made with bio-based Dyneema®

Carbon footprint comparisons have been calculated with DSM internal Life Cycle Assessment using publicly available information about other materials.

## From the trees to bio-based Dyneema®, the mass balance approach explained.

DSM has taken the next major step in its sustainability journey by introducing the first ever bio-based ultra-high molecular weight polyethylene fiber (branded as Dyneema®) and further reducing its reliance on fossil fuel based resources. Ethylene is the primary raw material used to manufacture Dyneema® fibers, and is the feedstock that will be transitioned from conventional to a renewable source via mass balancing.

For more information go to [www.dyneema.com/biobased](http://www.dyneema.com/biobased).