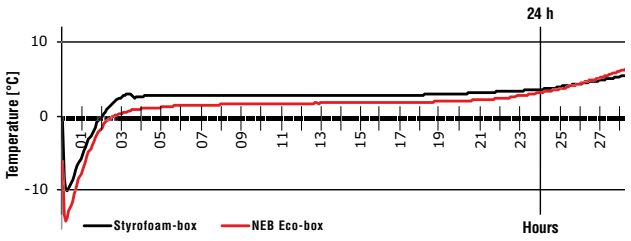
NEB Shipping Policy:

New England Biolabs is gradually converting shipping logistics for frozen and refrigerated goods for you: Instead of the usual polystyrene ("styro-foam") insulation boxes, we now use sustainable and environmentally friendly shipping boxes with straw or hemp insulation, which require 50 times less energy in production.

This new, environmentally friendly insulated box meets the strictest criteria for reliable and sustainable shipping:

- **Functional:** shock-absorbing, moisture-regulating and very good insulating properties
- **Ecological:** climate-neutral production in Germany
- **Pure:** from pure, thermally treated straw or hemp fibers in food quality
- **Tested:** best insulation performance tested according to internal and external standards
- **Certified:** tested and certified according to EU hygiene standards (e.g. DIN EN15593, GMP-Regulation (EC) Nr. 2023/2006, (EC) Nr. 1935/2004)



Gel ice packs are kept at -20°C for at least 72 hours prior to shipment and shipping boxes are tightly sealed. Tests have shown that products shipped under these conditions will stay at or below 4°C for more than 24 hours.

Shipment Temperature

While New England Biolabs recommends storage of its enzymes at -20°C*, exposure to higher temperatures (+4 to +10°C) during shipping does not pose any risk to the enzymes. In fact, during the purification process (up to 3 weeks) enzymes are maintained at these temperatures as they are purified away from proteases and other contaminants which might interfere with their stability. Furthermore, each enzyme is shipped in a specific storage buffer which has been optimized for long-term stability.

Avoid Repeated Freeze/Thaw Cycles

NEB enzymes are stored in buffered 50% glycerol and remain liquid at temperatures down to -35°C. If these enzymes are shipped at colder temperatures (on dry ice) the products will freeze. Proteins subjected to repeated freeze/thaw cycles may lose activity.
The enzymes we supply are highly purified and are not at risk from contaminating endonucleases and proteases - it is the activity of these at 4°C that often causes loss of restriction enzyme activity. Recent advances in recombinant enzyme technology allows NEB to produce enzymes of unsurpassed quality and purity. NEB's recombinant enzymes are extremely pure and many have enhanced stability at elevated temperatures, retaining 100% of their original activity even after being at 25°C for 16 hours!

Thawed Buffers And Cool Packs

All of our enzymes are provided with tubes of optimal reaction buffer. These buffer solutions and the gel ice packs are frozen to -20°C before they leave our facility, however, they may have thawed upon arrival at their final destination. This is no cause for concern with our overnight gel ice shipments since buffer i ntegrity is maintained!

*Most NEB products are stored at -20 °C! However, some of our products require storage temperatures of +4 °C or -70 °C or shipment on dry ice! These products are clearly marked on the products' datacard and on the delivery receipt.

To help prevent damage arising from power cuts or freezer breakdowns NEB recommends to store NEB cool packs within your freezers as an additional thermal mass! We are shipping an appropriate amount of cool packs free of charge upon request. This is part of our commitment to excellent customer service.

Do you have additional questions concerning our shipping policy? Please do not hestitate to contact our French office at:

Tel. : 0800 100 632
or
info.fr@neb.com

Conclusion:

The best temperature to ship NEB's enzymes is at +4 °C on genuine NEB gel ice packs!*

NEW ENGLAND BioLabs®