ADVANCED OXYGEN BARRIER FOR MULTILAYER PACKAGING

Enoxite BARRIER

ENOXITE® BARRIER AVAILABLE GRADES E20

Enoxite® Barrier is a product range of **advanced barrier materials** that offers a **sustainable** and **efficient alternative to EVOH.**

ENOXITE® BARRIER PRODUCT RANGE KEY ADVANTAGES:

ENHANCED OXYGEN BARRIER PERFORMANCE

Allows to extend the shelf life of food, reducing food waste and ensuring product quality.

MINIMIZED ENVIRONMENTAL IMPACT

Reduces plastic use in packaging, enhances recyclability of multilayer films, and enables compostable barrier packaging solutions.

ENOXITE® BARRIER E20 SUSTAINABLE ADVANTAGES

SOLUBILITY IN WATER

E20 is **soluble** in water at **room temperature.**

MULTILAYER BARRIER FILM RECYCLABILITY

In **multilayer structures**, **E20 dissolves during washing stage** at any recycling facility (no washing temperature dependency), **improving** quality of **recyclate**.

BIODEGRADABILITY

E20 is certified as **OK biodegradable WATER** by **TÜV AUSTRIA**. Once dissolved in water, **during recycling process**, E20 **biodegradation** will take place.

REDUCES FOOD WASTE

Thanks to its **excellent barrier properties**, E20 **significantly extends shelf life**, **reducing food waste** and its **environmental impact.**

ENOXITE® BARRIER MAIN APPLICATIONS

PACKAGING FOR DRY FOOD AND BAKERY

Ideal for packaging of **dry food products** such as nuts, dehydrated foods, cereals, rice, pasta, legumes and baked goods, or barrier casings thanks to its **excellent oxygen barrier performance in low-moisture environments**.

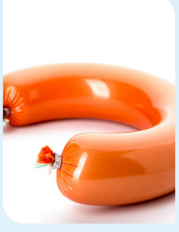
This grades could be used as barrier materials in different packaging formats such as **flexible films, thermoformed trays, or pouches**.

THERMOFORMED TRAYS

POUCHES

FLOW PACKS

CASINGS



BARRIER CONTAINERS

E20 is suitable for **chemical containers** thanks to its **resistance to grease** and its **oxygen barrier, such as agrochemicals & cosmetic packaging.**

Thanks to its great **resistance to grease**, it is possible to produce assymetric structures where E20 is in **direct contact** with the content.

AGROCHEMICAL CONTAINERS

COSMETIC CONTAINERS

ENOXITE® BARRIER E20 TECHNICAL FEATURES

HIGH BARRIER

An **alternative to EVOH**.

Preserves the **freshness** and **quality of food** during **extended storage periods**.

OTR is **dependent on ambient moisture**. **E20** provides excellent performance in low moisture environments.

FOOD CONTACT COMPLIANCE

Enoxite Barrier E20 can be used for **indirect food contact*** depending on the type of food, duration, and conditions, in accordance with Regulation (EU) No. 10/2011.

* Food contact compliant when used as internal layer

COMPATIBILITY

Suitable for use in multilayer structures, **combined with conventional polymers** (PP, PE, PS, PET, PA) and **biopolymers**.

PROCESSING

Compatible with **Blown**, **Cast**, and **Three Bubble extrusion**, as well as **Blow Moulding**, using **standard EVOH processing equipment**.

Tie layer not required when combined with **biopolymers**.

PE STRUCTURES

PE/BARRIER COEXTRUSION STRUCTURE OF 50 MICRONS: LDPE/tie/E20/tie/LDPE	
	ENOXITE E20 (5 microns)
OTR, 0% RH/23°C (cc/m²·day)	0,6
OTR, 50% RH/23°C (cc/m²·day)	3,3
WVTR, 90% RH/38°C (g/m²·day)	12,2

Contact NUREL's **technical department** for more information or to inquire about other avaliable products.

COMPOSTABLE STRUCTURES

SYMMETRIC COEXTRUSION STRUCTURE OF 60 MICRONS: Inzea F18CH/tie/E20/tie/Inzea F18CH*	
	ENOXITE E20 (5 microns)
OTR, 50% RH/23°C (cc/m²·day)	3,0

SYMMETRIC COEXTRUSION STRUCTURE OF 40 MICRONS: Inzea M30TH/ E20/ Inzea M30TH (40 um)*	
(TIE LAYER NOT REQUIRED)	**ENOXITE E20 (5 microns)**
OTR, 0% RH/23°C (cc/m²·day)	5,9

*We recommend processing Enoxite Barrier E20 in combination with Inzea® biopolymers.

Enoxite BARRIER