Ultramid® for extrusion

The reliable solution for demanding packaging and technical applications

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BASF
We create chemistry

Ultramid® extrusion grades are an excellent choice for flexible packaging and monofilaments. They exhibit a high transparency in the application and feature outstanding mechanical properties in strength and puncture resistance, as well as heat resistance.

In films, Ultramid® has shown to be indispensable when it comes to
- Thermoformability
- Barrier (particularly oxygen, flavor, aroma, and chemicals)
- Downgauging potential due to unique combination of mechanical, thermal and optical properties
- High suitability for casings

Ultramid® extrusion grades are processable while using blown and cast film processes for oriented and non-oriented mono- and multilayer structures.

Recyclability

As early as June 2021, the independent testing and certification facility cyclos-HTP systematically examined and confirmed the recyclability of PE/PA multilayer films on behalf of BASF.

The German “Stiftung Zentrale Stelle Verpackungsregister (ZSVR)” (Central Agency Packaging Register) reclassified polyamides in the minimum standard for assessing the recyclability of packaging subject to system participation in September 2022 and recognized coextruded PE/PA film structures as mechanically recyclable.

This was expanded in the 2024 edition of the ZSVR minimum standard to include coextruded PE/PA/ethylene vinyl alcohol copolymer (EVOH) multilayer films and adhesive-laminated PE/PA structures, which have now also been classified as recyclable.

Alternative feedstocks

Alternative feedstocks contribute to reducing fossil raw material consumption and therefore support material circularity. BASF offers its high-quality polyamides as Ultramid® Ccycled® with mass-balanced recycled raw materials from plastic waste and used tires and as Ultramid® Biomass Balance with mass-balanced renewable raw materials. These are certified according to REDcert2 and/or ISCC+.

Ultramid® product portfolio for extrusion

Ultramid®	melting point	viscosity number	relative viscosity	additives	applications
Ultramid® B (homopolyamide PA6) grades					
Ultramid® B33 L	220°C	195	3.3	lubricant	BOPA, paper coating, monofilaments
Ultramid® B36 L	220°C	218	3.6	lubricant	water cooled blown film, casing
Ultramid® B36 LN	220°C	218	3.6	lubricant, nucleating agent	cast film, extrusion lamination
Ultramid® B36 LNV	220°C	218	3.6	lubricant, nucleating agent	cast film
Ultramid® B40	220°C	250	4.0		blown film, monofilaments
Ultramid® B40 L	220°C	250	4.0	lubricant	blown film, casing, monofilaments
Ultramid® B40 LN	220°C	250	4.0	lubricant, nucleating agent	cast film, water cooled blown film
Ultramid® slow crystallisation grades					
Ultramid® B36 SL	215°C	218	3.6	lubricant	blown film, casing
Ultramid® B36 SLN	215°C	218	3.6	lubricant, nucleating agent	cast film, blown film, extrusion lamination
Ultramid® C (copolyamide PA6/66) grades					
Ultramid® C33	196°C	195	3.3		blown film, monofilaments
Ultramid® C33 L	196°C	195	3.3	lubricant	blown film
Ultramid® C33 LN	196°C	195	3.3	lubricant, nucleating agent	blown film
Ultramid® C37 LC	182°C	225	3.7	lubricant	monofilaments, blown film, shrink film
Ultramid® C40 L	189°C	225	4.0	lubricant	monofilaments, blown film, shrink film
Ultramid® C40 LN	189°C	225	4.0	lubricant, nucleating agent	blown film
Ultramid® C40 LX	189°C	225	4.0	lubricant	monofilaments

Ultramid® Nomenclature		
Nomenclature	Ultramid® extrusion grades are designated by letters and digits which indicate chemical composition, viscosity and additives.	
Polyamide type	B = PA 6 C = copolyamide 6/66	
Viscosity class	Relative viscosity in 96%/23°C sulphuric acid (i.e 36 for RV 3.6). 33 = intermediate viscosity 36 = intermediate to high viscosity 37 = high viscosity 40 = high viscosity	
Additive	L = lubricated LC = clear LN = lubricated and nucleated	LNV = lubricated and nucleated, reduced residual caprolactam level LX = high gloss and transparency S = slow crystallisation
Example:	B40 LN (PA6, high viscosity, lubricated, nucleated)	