

LUSTRAN[®] ABS 256

ABS

Extrusion Blending Grade

Description

Lustran ABS 256 resin is a natural, medium-flow, medium-impact, low-gloss, low-gel extrusion grade of ABS (Acrylonitrile Butadiene Styrene). It is used for blending with other Lustran ABS virgin and regrind materials to optimize cost and performance. As with any product, use of Lustran ABS 256 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

Drying

Drying prior to processing is recommended in a desiccant dehumidifying hopper dryer. An inlet air dew point of -20°F (-29°C) or below is recommended to achieve a maximum moisture content of 0.03%. Typical drying conditions are 3–4 hours at 180°-200°F (82°-93°C).

Processing

Extruder. To obtain an optimum balance of sheet gloss and mechanical properties, the extruder profile should be set to deliver polymers at a melt temperature between 420° and 465°F (215° and 240°C).

Screw Design. Single- or two-stage screws can be used, although a two-stage screw is preferred. For two-stage screws, a first-stage compression ratio (feed depth to metering depth) of 2.5 – 2.7 and a pump ratio (second-stage metering to first-stage metering) of 1.5 – 2.0 are recommended.

Die. Die temperature settings for Lustran ABS normally range between 410° and 465°F (210° and 241°C). The die should be adjusted to provide uniform polymer melt at the lips.

Roll Stack. Suggested polishing roll settings for Lustran ABS using a standard S wrap are noted below. Specific settings are dependent on sheet gauge and linear speed.

Polishing Roll	Down Stack	Up Stack
Top	200°F (93°C)	200°F (93°C)
Middle	165°F (47°C)	190°F (88°C)
Bottom	200°F (93°C)	180°F (82°C)

Additional information on processing may be obtained by contacting an INEOS ABS technical service representative.

Regrind Information

For extrusion grades of Lustran ABS resin, up to 40% regrind may be used with virgin material, depending on the end-use requirements of the extruded part and provided that the material is kept free of contamination and is properly dried (see section on Drying). Only compatible materials should be used for regrind. Lustran ABS resin is totally compatible with Centrex[®] resin at all ratios. Other thermoplastics, such as polystyrene, polyethylene, and polypropylene, to mention a few, are not compatible, and mixing will result in appearance and property degradation.

Any regrind used must be generated from properly extruded and/or thermoformed parts and trim scrap. All regrind used must be clean, uncontaminated, and thoroughly blended with virgin resin prior to drying and processing. Under no circumstances should degraded, discolored, or contaminated material be used for regrind. Material of this type should be discarded.

Improperly mixed and/or dried regrind may diminish the desired properties of Lustran resin. It is critical that you test finished parts produced with any amount of regrind to ensure that your end-use performance requirements are fully met. Regulatory or testing organizations (e.g., UL) may have specific requirements limiting the allowable amount of regrind. Because third party regrind generally does not have

a traceable heat history, nor offer any assurance that proper temperatures, conditions, and/or materials were used in processing, extreme caution must be exercised in buying and using regrind from third parties.

The use of regrind material should be avoided entirely in those applications where resin properties equivalent to virgin material are required, including but not limited to color quality, impact strength, resin purity, and/or load-bearing performance.

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling the INEOS ABS products mentioned in this publication. For materials mentioned which are not INEOS ABS products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be followed. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., *material safety data sheets and product labels*. Consult your INEOS ABS representative or contact the Product Safety and Regulatory Affairs Department at INEOS ABS.

Note: The information contained in this publication is current as of October 2009. Please contact INEOS ABS to determine whether this publication has been revised.

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