

LUSTRAN[®] 720

ABS

Molding Grade for DWV Fittings

Description

Lustran ABS 720 resin is a black, virgin injection molding grade of ABS (acrylonitrile butadiene styrene). It is supplied as salt-and-pepper pellets with color concentrate 901802 black. Designed for molded drain, waste, and vent (DWV) fittings, Lustran ABS 720 resin in color 901802 black meets or exceeds ASTM D 3965 3-2-2-2 cell class requirements for ASTM F 628 and D 2661. It is also listed under NSF Standard 14 and CSA Standard B181.1. As with any product, use of Lustran ABS 720 resin in a given application must be tested (including but not limited to field testing) 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 moisture content of 0.05% maximum. Typical drying conditions are 2 hours at 180°-200°F (82°-93°C).

Processing

Typical processing parameters are noted below. Actual processing conditions will depend on machine size, mold design, material residence time and shot size.

Typical Injection Molding Conditions	
Melt Temperature.....	450° – 470°F (232° – 243°C)
Mold Temperature.....	110° – 150°F (43° – 66°C)
Injection Pressure.....	Moderately High to High
Injection Speed.....	Moderate to Fast
Cushion	Minimum

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

Regrind Information

Generally, ABS regrind can be used up to 40% with virgin ABS as long as the regrind is clean and uncontaminated with other materials and properly dried. However, DWV pipe and fittings are regulated by NSF under Standard 14, and by CSA under Standard 181.1.

NSF Standard 14 restricts the use of regrind. Each processor must submit samples and obtain specific approval from NSF to utilize any regrind. NSF, after review and testing, has allowed the use of in-plant line scrap, which would be the processor's regrind, up to about 10%. For more information, consult NSF Standard 14 or call NSF.

CSA Standard 181.1 allows the use of clean regrind material generated from the manufacturer's own production of DWV pipe, fittings, or accessories, provided that the product produced with regrind meets all the requirements of the standard. For more information, consult CSA Standard 181.1 or call CSA.

For DWV applications that are not covered by NSF Standard 14 or CSA Standard B181.1, consult the appropriate building code or applicable regulatory agency for guidelines or call your INEOS ABS representative.

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.

Typical Properties* for Black (901802) Resin	ASTM Test Method (Other)	Lustran® ABS 720 Resin**	
		U.S. Conventional	SI Metric
General			
Specific Gravity	D 792		1.05
Density	D 792	0.038 lb/in ³	1.05 g/cm ³
Specific Volume	D 792	26.4 in ³ /lb	0.95 cm ³ /g
Melt Flow Rate at 220°C/10-kg Load	D 1238		6.5 g/10 min
Melt Flow Rate at 230°C/10-kg Load	D 1238		10 g/10 min
Mechanical			
Tensile Stress at Yield	D 638	5,400 lb/in ²	38 MPa
Tensile Modulus	D 638	290,000 lb/in ²	2.0 GPa
Impact Strength, Notched Izod:	D 256		
0.125-in Thickness, 23°C		5.5 ft-lbs/in	294 J/m
0.125-in Thickness, -30°C		2.4 ft-lbs/in	128 J/m
Thermal			
Deflection Temperature, Annealed	D 648		
0.125-in Thickness, 264 psi		219°F	104°C

* These items are provided as general information only. They are approximate values and are not part of the product specifications.

** Property values obtained on injection molded specimens unless otherwise noted.

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INEOS ABS (USA) Corporation