



Crystal Clear Sealant 230

Technical Data

February, 2012

Product Description

3M™ Crystal Clear Sealant 230 is a one component thermoplastic elastomer which forms permanent elastic bonds when used in surface sealing applications. 3M Crystal Clear Sealant 230 bonds to a wide variety of materials including plastics, metals, fiberglass, and wood. 3M Crystal Clear Sealant 230 is crystal clear after drying and has good UV resistance, plus has broad substrate adhesion for a wide range of productivity enhancement applications.

Features/Advantages

Feature	3M™ Crystal Clear Sealant 230	Advantage
One component	X	<ul style="list-style-type: none">• No mixing• Simplifies production
Seals dissimilar materials	X	<ul style="list-style-type: none">• Gives design flexibility
Permanently elastic	X	<ul style="list-style-type: none">• Provides long lasting bonds
Fast skinning	X	<ul style="list-style-type: none">• Speeds production
Paintable when dry	X	<ul style="list-style-type: none">• Improves appearance
Crystal Clear	X	<ul style="list-style-type: none">• Does not require color matching nor painting• Ideal for transparent cosmetic sealing
Low modulus / Low Shore A Hardness	X	<ul style="list-style-type: none">• Ideal for surface sealing

3M™ Crystal Clear Sealant 230

Application Ideas

Market	3M™ Crystal Clear Sealant 230
General Industrial	X
Construction	X
Marine	X
Specialty Vehicle	X
	Seals lap seams on trucks, trains, trailers, etc., and construction panels. Seals/Bonds well to most common substrates. Dries clear.

Technical Data

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Properties	3M™ Crystal Clear Sealant 230
Tack-Free Time @ 73°F and 50% Relative Humidity	<20 minutes
Skin Time @ 73°F and 50% Relative Humidity	3 minutes
Shore A Hardness (ASTM C661)	25-35
Elongation at Break (ASTM D412)	300%
Service Temperature	-35°F - 350°F (-37°C - 177°C)
Specific Gravity	0.88
Consistency	Medium paste
VOC Content	158 g/l

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Typical Properties of 3M™ Crystal Clear Sealant 230

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Application Temperature	40°F - 95°F (5°C - 35°C)
UV resistance	Good
Compatibility with paints	Water based: yes Solvent based: test beforehand
Approximate Coverage (10.5 oz. [310 mm Cartridge])	1/8" (3 mm) bead = 126 lineal feet (38 lineal meters)

Performance Data

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Heat Resistance:

Long term exposure to temperatures greater than 350°F (177°C) will decrease tensile strength over time. Do not use these products in applications where the temperatures will continuously exceed 350°F (177°C).

Product Certifications and Listings

	3M™ Crystal Clear Sealant 230
Leadership In Energy and Environmental Design (LEED) Contributes to LEED credit	X

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Directions for Use

Surface Preparation:

Surfaces to be sealed or bonded should be clean and dry. Surfaces should be free from grease, mold release, oil, water/condensation, and other contaminants that may affect the adhesion of the sealant. Abrading with 180 to 220 grit abrasive followed by a solvent wipe will improve the bond strength. Suitable solvents include 3M™ Adhesive Remover, methyl ethyl ketone (MEK), isopropyl alcohol (IPA) or acetone.*

***When using solvents, use in a well ventilated area. Extinguish all sources of ignition in the work area and observe product directions for use and precautionary measures. Refer to product label and MSDS for further precautions. Always pre-test solvent to ensure it is compatible with substrates.**

Local and federal air quality regulations may regulate or prohibit the use of these products or surface preparation and cleanup materials. Consult local and federal air quality regulations before using these products.

Primer:

Use of a primer is an extra step and cost and will depend on substrates and the final end use. Using primer can improve the corrosion resistance of certain metals as well as improve the durability of the bond when exposed to high humidity conditions. For most applications, high strength bonds on metal can be achieved without the use of a primer. Pre-testing for adhesion is suggested to determine if a primer is needed. Contact your 3M Technical Service representative for primer recommendation and application advice.

Application:

Loading the applicator gun: make sure the applicator is set up with correct plunger attachment for cartridge or sausage pack.

Cartridge: Cut nozzle to desired size and shape, then puncture seal in nozzle. Load into applicator and fix retaining ring (if applicable).

Sausage Pack: Make a 1" slit close to the crimp on one end of the sausage pack. Load the sausage pack into the applicator barrel (slit side out). Place the rounded end of the supplied sausage nozzle onto the slit end of the sausage pack and fix with retaining ring. Cut nozzle to desired size and shape.

Product should be used within 24 hours after seal is punctured. Dispense product with the nozzle tip in contact with the substrate to insure good gap filling. Bonding must occur within the first 50% of published skin time

Do not apply sealants on frozen nor wet surfaces. Do not apply over silicone nor in the presence of curing silicone. Sealant can be tooled immediately after applying to give desired appearance.

Cleanup:

While sealant is still soft, cleaning can be done with the same solvents used for surface preparation. If sealant is already cured, removal is done mechanically with a razor knife, piano wire, by sanding or by using a 3M™ Scotch-Brite™ Molding Adhesive and Stripe Removal Disc. This disc is available from 3M Automotive Aftermarket Division.

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Application Equipment Suggestions

Cartridge and Sausage Pack:

A variety of applicators are available. Please contact your sales rep for assistance in selecting an applicator.

Storage

Hybrid sealants and adhesive sealants must be stored in a controlled environment to maximize shelf life. Store the products in the original unopened containers below 77°F (25°C).

Shelf Life

When stored at recommended conditions, the shelf life is 6 months from date of shipment from 3M.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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