

**DP****1020**

# WATER BASED DUCT SEALANT

**A fiber reinforced, water based, premium quality, UL Listed, high pressure/high velocity duct sealant for commercial and residential supply and return air duct use.**

## Recommended Uses:

**DP 1020** is recommended for sealing joints, seams, and duct wall penetrations.

**DP 1020** is recommended for sealing connections on flexible duct.

**DP 1020** is recommended up to 15 inches water column pressure.

## Features and Benefits:

- **LEED** Qualified
- UL Listed
- Excellent Workability
- Crack and Peel Resistant
- Mold and Mildew Resistant
- Excellent Dry Adhesion
- Indoor and Outdoor Usage
- Minimal Shrinkage
- Sag Resistant
- Excellent Water and U.V. Resistance
- Meets FDA, USDA, and EPA Standards
- Meets Requirements of NFPA 90A & 90B, ASTM E-84, and UL-723
- Paintable with latex or epoxy paints after cured

## Directions For Use:

**Uses:** DP 1020 may be used to seal joints on metal, flexible and fiberglass duct board supply and return air duct.

**Surface Preparation:** Surfaces should be clean, dry and free of dirt, oil and any foreign matter.

**For sheet metal duct:** DP 1020 should be applied to all connections according to SMACNA standards. Brush, caulk, pump or trowel DP 1020 on all duct seams. Apply to TDC/TDF and applied flange corners. Apply to all penetrations in the duct wall including sheet metal screw heads and tie rods. When caulking DP 1020, sealant should be brushed into seams.

**For round and oval spiral duct:** Apply DP 1020 to the male section of the fitting or to the inside slip duct coupling. Secure with sheet metal screws per manufacturers requirements. Apply a 2-inch band of DP 1020 around outside of joint, covering all screws.

**For rigid fiberglass air duct:** Assemble sections according to the manufacturers recommendations. Apply a 3-inch by 20 mil band of DP 1020 to the joint. Embed a fiberglass scrim (5 mil, 20 x 10 plain weave, 1.75 oz per sq. yd.) in the sealant and apply another 20 mil coat of DP 1020 over the scrim.

**For flexible duct:** Install flexible duct per manufacturers instructions using drawbands or mechanical fastener. Apply DP 1020 between the end of the duct and the collar in a 2-inch band. Use DP 1020 to seal all connections of collar to metal duct or rigid fiberglass ductboard.

**Pressure Testing:** Allow at least 48 hours before pressure testing. Since temperature and humidity conditions may vary, longer cure times may be required for specific installations.

**Do not apply when rain or freezing temperatures will occur within 36 hours. Do not thin.**

## Technical Data:

**Color:** Gray

**Base:** Water

**Chemical Family:** Synthetic Latex

**Solids Content:** 68 ± 2%

**Viscosity:** Approx. 300,000 - 400,000 cps

**Application Temperature:** 40°F - 110°F

**Storage Temperature:** 40°F - 110°F. Do not freeze. If product freezes, allow to return to room temperature before applying.

**Freeze/Thaw Stability:** 5 cycles no deterioration (DPTM-20)

**Service Temperature:** -25°F - 200°F

**Flammability:** Non-flammable wet or dry

**Flash Point:** No flash to boiling

**Shelf Life:** 2 Years (unopened containers)

**Cure Time:** 24-72 hours depending on temperature, humidity, and application

**Coverage:** Dependent on application thickness, 80-100 sq. ft. at 20-30 wet mils

**Clean Up:** Use warm water and soap

**Packaging:** 1/12 gallon tubes, 1 gallon pails, 2 gallon pails, 5 gallon pails, 54 gallon drums

**Pressure Classes:** Meets all SMACNA pressure classes

**Seal Classes:** Meets all SMACNA seal classes

**VOC:** 19 g/l

ASTM E-84 SURFACE BURNING CHARACTERISTICS  
DP 1020 Duct Sealant applied to inorganic reinforced cement board  
Flame Spread: 0      Smoke Developed: 0  
Test applied in two 2" wide strips 8" on center (coverage 16% of the exposed test sample area) at a spread rate of 250 sq. ft. per gal.  
Flash point of finished sealant, closed cup. No flash to boiling.

UNDERWRITERS LABORATORIES INC.  
LISTED ADHESIVES

16UK  
UL 181 B-M

For use with UL Listed flexible air ducts or connectors



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# M A T E R I A L   S A F E T Y   D A T A   S H E E T

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PRODUCT NAME:    GRAY, FIBERED WATER BASED DUCT SEALANT  
PRODUCT CODE:    DP 1020

HMIS CODES:    H    F    R    P  
                  1    0    0    B

=====    SECTION I – MANUFACTURER IDENTIFICATION    =====

MANUFACTURERS' NAME:    DESIGN POLYMERICS  
ADDRESS:                    11609 MARTENS RIVER CIRCLE  
                                  FOUNTAIN VALLEY, CA 92708

EMERGENCY PHONE:        Chem-Tel: (800) 255-3924 (24 Hrs)  
INFORMATION PHONE:      (714) 432-0600

BUSINESS HOURS:        7:30am – 4:30pm PT  
REVISION DATE:         April 27, 2007  
REVISION #:             6  
Supersedes all previous

PREPARED BY: Technical Dept.

DOT Hazard Class         Not Hazardous  
Shipping Name             N/A

UN Number                N/A  
Packing Group             N/A

=====    SECTION II - HAZARDOUS INGREDIENTS / SARA III INFORMATION    =====

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
* Ethylene Glycol OSHA PEL: 50ppm ceiling; ACGIH/TLV: 50ppm vapor and mist	107-21-1	0.06    68°F	<0.5%

\* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.

=====    SECTION III - HEALTH HAZARD DATA    =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Adverse health effects from vapors or spray mists in poorly ventilated areas may include irritation of the mucous membranes of the nose, throat, and respiratory tract and symptoms of headache and nausea.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: EYES: In direct contact, may cause irritation. SKIN: Prolonged and repeated contact with product may cause skin irritation.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Redness, drying of the skin, or other signs of irritation or contact dermatitis.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

HEALTH HAZARDS (ACUTE AND CHRONIC): ACUTE: May cause irritation to skin and eyes, gastrointestinal irritation, nausea, and vomiting. CHRONIC: Prolonged or repeated exposure above TLV may result in permanent brain and nervous system damage.

CARCINOGENICITY:            NTP CARCINOGEN: No            IARC MONOGRAPHS: No            OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: May be aggravating to some skin and respiratory conditions, and to pre-existing liver and/or kidney disorders.

=====    SECTION IV – FIRST AID PROCEDURES    =====

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, administer artificial respiration. Contact physician or emergency medical facility immediately.

SKIN: Remove contaminated clothing and shoes. Wash exposed area thoroughly with soap and water for at least 15 minutes. Do not rub affected area. If irritation persists, get medical attention. Skin reaction may take 24 to 48 hours to develop. Wash contaminated clothing before reuse.

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes while frequently lifting the upper and lower eyelids. If irritation persists, call a physician.

INGESTION: Do not induce vomiting. Contact physician or emergency medical facility immediately. Never give anything by mouth to an unconscious person.

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## SECTION V - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not Applicable

METHOD USED: Not Applicable

FLAMMABLE LIMITS IN AIR BY VOLUME – LOWER: N/A

UPPER: N/A

EXTINGUISHING MEDIA: The product will only burn after the water it contains is driven off. For dried film use water, foam, carbon dioxide or dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: When dried film burns, carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), hydrogen chloride gas (HCl), and smoke are produced. Firefighters should wear self-contained breathing apparatus, especially in enclosed areas. Cool containers and minimize vapors with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers exposed to high temperatures may explode or burst due to build-up of steam pressure.

## SECTION VI – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike, contain, or absorb with inert absorbent material. Collect spilled material in a salvage container. Prevent spill from entering sewers, drains, streams, waterways, or other bodies of water.

WASTE DISPOSAL METHOD: Dispose of in accordance with all local, state and federal regulations.

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING, STORAGE, AND USE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: **DO NOT ALLOW TO FREEZE.** Store in a cool dry location away from heat. Keep containers tightly closed and store with adequate ventilation.

OTHER PRECAUTIONS: **DO NOT TAKE INTERNALLY.** Avoid inhalation of excess vapors, ingestion, and unnecessary, prolonged, or repeated contact with this and any other chemical. Change soiled work clothes frequently. Clean hands after handling. **KEEP OUT OF REACH OF CHILDREN.**

## SECTION VIII – EXPOSURE CONTROLS

RESPIRATORY PROTECTION: Not required under normal conditions. Provide sufficient ventilation to maintain constant fresh air in workspace. If TLV is exceeded, use NIOSH/MSHA approved organic vapor and mist, supplied air, or self-contained breathing apparatus. Avoid breathing sanding dust.

VENTILATION: Use adequate mechanical (general and/or local) ventilation to maintain exposure below TLV.

SKIN PROTECTION (PROTECTIVE GLOVES): Wear resistant gloves such as polyethylene.

EYE PROTECTION: Use chemical splash goggles or OSHA permitted safety glasses.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear impervious clothing. Eye wash station.

WORK / HYGENIC PRACTICES: Source of clean water should be available for flushing eyes and washing skin. Wash thoroughly after handling any chemicals, especially before eating, drinking, or smoking. Remove and launder contaminated clothing before reuse.

## SECTION IX - PHYSICAL / CHEMICAL CHARACTERISTICS

PHYSICAL FORM: Fibrous, viscous liquid

COLOR: Gray

ODOR: Mild, sweet

pH: 7.5-9.0

SOLUBILITY IN WATER: Miscible

SPECIFIC GRAVITY (H<sub>2</sub>O=1): 1.3-1.5

BOILING POINT: 212°F

% VOLATILES BY WEIGHT: 30-40

FREEZING POINT: 32° F (0° C)

VISCOSITY (cps): approx. 300,000-400,000

COATING V.O.C.: 19 g/l

## SECTION X – STABILITY AND REACTIVITY DATA

STABILITY: Stable at ambient temperatures.

CONDITIONS TO AVOID: Coagulation may occur after freezing, thawing, or boiling.

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INCOMPATIBILITY (MATERIALS TO AVOID): Metal salts, mineral acids (i.e. sulfuric, phosphoric, etc.) Strong oxidizing agents. Strong reducing agents.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials on thermal decomposition including Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), and various hydrocarbons. Under fire conditions, this product will release hydrogen chloride gas.

===== SECTION XI –REGULATORY INFORMATION =====

This product is considered non-hazardous under the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW (SARA TITLE III):**

Section 311/312 Categorizations (40 CFR 370): Immediate (Acute) Health Hazard.

Section 313 Information (40 CFR 372) – Toxic Chemicals List: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

Component	CAS#	% by Weight
Ethylene Glycol	107-21-1	<0.5%

Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

CERCLA INFORMATION (40cfr 302.4): Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): None listed.

===== SECTION XII –DISCLAIMER =====

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Design Polymerics from its suppliers, and because Design Polymerics has no control over the conditions of handling and use, Design Polymerics makes no warranty, express or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Design Polymerics assumes no responsibility from use or reliance thereon. It is the responsibility of the user of Design Polymerics products to comply with all applicable Federal, State and Local Laws and Regulations.