

# NPC – Bidco C-56 Butyl Mastic Sealant

## Data Sheet & Installation Instructions

NPC Bidco C-56 Butyl Mastic Joint Sealant is custom engineered to meet the most exacting standards of the precast concrete industry. C-56 remains flexible and forms a permanent bond to a wide variety of substrates including concrete, metals and plastics.

Adhesion and cohesion at the time of installation are excellent and actually improve after the joint has been formed and placed into service. This sealant is designed not to shrink, oxidize or harden and has excellent resistance to temperature extremes, acid and alkaline environments.

C-56 Butyl Mastic Joint Sealant is designed to fully comply with current ASTM Standards and Specifications as required by Federal, State, and Local agencies for use by the precast concrete industry and contractors.

### Product Features:

- Available in strip or coil form
- Crush-proof packaging
- Non-stick, non-tear plastic backing

### Primary Applications:

- Concrete Pipe
- Box Culverts
- Utility Vaults
- Burial Vaults
- Septic Tanks
- Wet Wells
- Sanitary & Storm Sewer Manholes
- Concrete Wall Panel Systems

Federal Specifications SS-S-210 A "Sealing Compound, Preformed Plastic for Pipe Joints",  
Type 1, Rope Form  
AASHTO Designation M-198 75 I, Type B, Flexible Plastic Gasket (Bitumin)  
ASTM Designation C-990-91.

| Coils          |               |                 |                   |                             |
|----------------|---------------|-----------------|-------------------|-----------------------------|
| Width & Length | Cross Section | Pieces Per Ctn. | L.F. Per Per Ctn. | Pallet Size # of Ctns./lbs. |
| .5" x 21.0'    | oval          | 10              | 210               | 45 ctns./24 lbs.            |
| .75" x 14.5'   | .66 x .66     | 10              | 145               | 45 ctns./36 lbs.            |
| 1.0" x 14.5'   | .88 x .88     | 8               | 116               | 45 ctns./50 lbs.            |
| 1.25" x 14.5'  | .875 x 1.375  | 5               | 72.5              | 45 ctns./49 lbs.            |
| 1.5" x 10.0'   | 1.125 x 1.50  | 5               | 50                | 45 ctns./47 lbs.            |
| 2.0" x 10.0'   | 1.50 x 2.0625 | 4               | 40                | 20 ctns./68 lbs.            |

| Strips         |               |                 |                   |                             |
|----------------|---------------|-----------------|-------------------|-----------------------------|
| Width & Length | Cross Section | Pieces Per Ctn. | L.F. Per Per Ctn. | Pallet Size # of Ctns./lbs. |
| .75" x 30"     | .478 x 1.0    | 50              | 125               | 340ctns./31 lbs.            |
| 1.0 x 30"      | .58 x 1.6     | 35              | 87.5              | 40 ctns./47 lbs.            |
| 1.25 x 42"     | .5 x 2.5      | 28              | 98                | 40 ctns./71 lbs.            |
| 1.5 x 42"      | .75 x 2.5     | 20              | 70                | 40 ctns./75 lbs.            |
| 1.75 x 42"     | .75 x 3.25    | 13              | 45.5              | 40 ctns./61 lbs.            |
| 2.0" x 42"     | 1.0 x 3.25    | 10              | 35                | 40 ctns./65 lbs.            |

NPC Bidco C-56 Meets or Exceeds:

### Surface Preparation:

Joint surfaces should be clean and dry. Due to the high adhesive quality of NPC Bidco C-56 Sealant, priming of the joint surface is usually not required. In case of wet or unusually demanding applications, it is recommended that an adhesive primer be applied to the joint surface and allowed to dry before application of the Sealant.

### Installation Instructions:

The size (cross-section) of C-56 required for a specific joint is determined by the annular space resulting in a fully sealed joint. The joint must be coupled with sufficient compression to form a proper watertight seal.

C-56 bonds instantly to joint surfaces and to itself. Always butt ends of preformed sealant together. Never overlap!

Leave protective plastic backing on sealant during application and remove when joint is ready for coupling

| Technical Specifications                                              |               |             |                                                         |
|-----------------------------------------------------------------------|---------------|-------------|---------------------------------------------------------|
| CHEMICAL COMPOSITION                                                  | SPECIFICATION | REQUIREMENT | NPC BIDCO C-56                                          |
| Content of Hydrocarbon — % by weight                                  | ASTM D4-86    | 50 - 70     | 56                                                      |
| Inert Mineral Filler — % by weight                                    | AASHTO T III  | 30 - 50     | 44                                                      |
| Volatile Matter — % by weight                                         | ASTM D-6      | 2.0 max.    | below 1                                                 |
| PHYSICAL PROPERTIES                                                   |               |             |                                                         |
| Specific Gravity — 77° F                                              | ASTM D-71     | 1.2 - 1.35  | 1.23                                                    |
| Ductility — 77° F                                                     | ASTM D-113    | 5.0 min.    | 10.0 +                                                  |
| Softening Point — 77° F                                               | ASTM D-36     | 320 min.    | 380                                                     |
| Penetration — 77° F                                                   | ASTM D-217    | 50 - 210    | 102                                                     |
| Accelerated Aging<br>(mechanical oven for 4 hours @ 212° F)           |               |             | Maintained 99+% of Solids<br>(Flexibility not affected) |
| Two Weeks — Total Water Immersion                                     |               |             | 300% min.                                               |
| Flow Resistance (1" wide overhead joint exposed to 135° F for 7 days) |               |             | No Flow                                                 |
| Storage Life                                                          |               |             | Indefinite                                              |
| Application Temperature Range                                         |               |             | 0 to 125° F                                             |
| Service Temperature Range                                             |               |             | -20 to 200° F                                           |
| CHEMICAL RESISTANCE (TOTAL IMMERSION - 30 DAYS)                       |               |             |                                                         |
| 5% Sulfuric Acid                                                      |               |             | No Visible Deterioration                                |
| 5% Hydrochloric Acid                                                  |               |             | No Visible Deterioration                                |
| 5% Potassium Hydroxide                                                |               |             | No Visible Deterioration                                |
| Saturated Hydrogen Sulfide Solution                                   |               |             | No Visible Deterioration                                |



## SUBMITTAL IDENTIFICATION SHEET

**To be completed by Contractor/CM**

|                               |                                   |
|-------------------------------|-----------------------------------|
| PROJECT NAME                  |                                   |
| <input type="text"/>          |                                   |
| ADDRESS                       |                                   |
| <input type="text"/>          |                                   |
| NUMBER                        |                                   |
| <input type="text"/>          |                                   |
| OWNER                         |                                   |
| <input type="text"/>          |                                   |
| ARCHITECT / ENGINEER          |                                   |
| <input type="text"/>          |                                   |
| SUBMITTED BY                  |                                   |
| <input type="text"/>          | <input type="text"/>              |
| CONTRACTOR / CM SUBMITTAL NO. | CANNON DESIGN SUBMITTAL NO.       |
| <input type="text"/>          | <input type="text"/>              |
| DRAWING / DETAIL REFERENCE    | SPECIFICATION SECTION / PARAGRAPH |
| <input type="text"/>          | <input type="text"/>              |
| MANUFACTURER / SUPPLIER       | ITEM / PRODUCT ID                 |
| <input type="text"/>          | <input type="text"/>              |
| REQUIRED DATE                 | PRIORITY                          |
| <input type="text"/>          | <input type="text"/>              |
| CRITICALITY                   |                                   |
| <input type="text"/>          |                                   |

**To be completed by Reviewer**

|                                |
|--------------------------------|
|                                |
| CANNON DESIGN SUBMITTAL NUMBER |
|                                |
| RECEIVED DATE                  |

- ☐ **A. No Exceptions Taken**  
No further review of submittal is required.
- ☐ **B. Make Corrections Noted**  
Incorporate corrections in work;  
resubmission is not required.
- ☐ **C. Revise and Resubmit**  
Revise as noted, and resubmit for review.
- ☐ **D. Rejected**  
Submittal is not in compliance with Contract Documents;  
provide new submittal.
- ☐ **E. For Record / Information Only**  
Submittal was reviewed for Record / Information  
purposes only.
- ☐ **F. Not Required for Review**  
Submittal is not required by Contract Documents  
and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

## ITEM BEING SUBMITTED (check only one)

- ☐ Shop Drawings      ☐ Certification / Qualifications      ☐ Coordination Drawing  
☐ Samples      ☐ Record Documents      ☐ Calculations  
 ( \_\_\_\_\_ copies)      ☐ Product Data      ☐ Schedules  
☐ LEED Submittal      ☐ O&M Manuals  
☐ Other

## ITEM BEING SUBMITTED FOR (check only one)

- ☐ Action      ☐ Information Only      ☐ Record

## REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION  
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)



PARIC CORPORATION  
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

Ry:

By:  
**Devin D. Gates**

|             |      |
|-------------|------|
|             |      |
| REVIEWED BY | DATE |

## A/E COMMENTS

- ☐
- See attached sheet(s) for additional comments

|             |      |
|-------------|------|
|             |      |
| REVIEWED BY | DATE |



77 Westport Plaza  
Suite 250  
St. Louis, MO 63146

**TRANSMITTAL**

**No. 15051-0200**

*Paric Corporation*

**PROJECT:** 15051-Webster University Interdisciplinary Science Building

**DATE:** 08/29/2016

**TO:** Cannon Design  
1100 Clark Ave  
St Louis MO 63102

**RE:** Precast Sanitary Structure Shop Drawings

**ATTN:** Kelvin Patel

**JOB:** 15051

| WE ARE SENDING:                                   |  | SUBMITTED FOR:                               | ACTION TAKEN:                                     |
|---------------------------------------------------|--|----------------------------------------------|---------------------------------------------------|
| <input checked="" type="checkbox"/> Shop Drawings |  | <input checked="" type="checkbox"/> Approval | <input type="checkbox"/> Approved as Submitted    |
| <input type="checkbox"/> Letter                   |  | <input type="checkbox"/> Your Use            | <input type="checkbox"/> Approved as Noted        |
| <input type="checkbox"/> Prints                   |  | <input type="checkbox"/> As Requested        | <input type="checkbox"/> Returned After Loan      |
| <input type="checkbox"/> Change Order             |  | <input type="checkbox"/> Review and Comment  | <input type="checkbox"/> Resubmit                 |
| <input type="checkbox"/> Plans                    |  |                                              | <input type="checkbox"/> Submit                   |
| <input type="checkbox"/> Samples                  |  | <b>SENT VIA:</b>                             | <input type="checkbox"/> Returned                 |
| <input type="checkbox"/> Specifications           |  |                                              | <input type="checkbox"/> Returned for Corrections |
| <input type="checkbox"/> Other:                   |  |                                              | <input type="checkbox"/> Due Date:                |

| <i>Item</i> | <i>Package</i> | <i>Code</i> | <i>Rev.</i> | <i>Copies</i> | <i>Date</i> | <i>Description</i>                       | <i>Status</i> |
|-------------|----------------|-------------|-------------|---------------|-------------|------------------------------------------|---------------|
| Submittal   |                | 221313-007  | 1           |               | 08/29/2016  | Precast Sanitary Structure Shop Drawings | Submitted     |

**NOTES:**

**CC:**

**Signed:** \_\_\_\_\_  
Devin Gates



# SUBMITTAL TRANSMITTAL

345 Marshall Avenue Suite 302, Webster Groves, MO 63119  
314-421-0042 phone, 314-231-9157 fax

**To:** Jason Szachnieski  
Paric Corporation

**From:** Ethan Gwinn  
**Date:** 8/29/2016

**Attn:**

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**Project Name:** Webster ISB  
**CASTLE Project Number:** 83160.106  
**Architect/Engineer's Project Number:**

**Subm. #:** 6 **Sub/Vendor:** Kienstra Precast

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**PLEASE FIND ENCLOSED:**

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| Copies | Date      | No. | Description                 |
|--------|-----------|-----|-----------------------------|
| 1      | 8/29/2016 | 1   | Precast Sanitary Structures |
|        |           |     |                             |
|        |           |     |                             |
|        |           |     |                             |
|        |           |     |                             |

**ACTION:**

|                                     |              |                          |                       |
|-------------------------------------|--------------|--------------------------|-----------------------|
| <input checked="" type="checkbox"/> | For Approval | <input type="checkbox"/> | Approved As Submitted |
| <input type="checkbox"/>            | For your Use | <input type="checkbox"/> | Approved As Noted     |
| <input type="checkbox"/>            | As requested | <input type="checkbox"/> | Revise & Resubmit     |

**COMMENTS:**

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**CC:** File