

Plastic Pipe Cements - Low V.O.C.

Spec Sheet #S00032
October 2009

Cements, Primers & Cleaners



DESCRIPTION

Low Volatile Organic Compounds (VOCs)

Release of VOCs may affect the environment or human health, depending on the particular chemicals involved, the quantities and concentrations. Also, a number of states have legislation mandating the use of low-VOC compounds. Because **Hercules Chemical Company®** is a leader in manufacturing specialty products for the construction trades, we have converted our line to Low-VOC solvent cements, primers and cleaners for use with PVC, ABS and CPVC pipe. These Low-VOC products meet the requirements established by the same rules that have been adopted by LEED® (Leadership in Energy and Environmental Design). Each of our products has been formulated to provide the same performance and reliability as our former regular solvent cements, primers and cleaners.

Cements, Primers, Cleaner & Accessories

Application specific **solvent cements** for superior bonding strength on rigid or flexible PVC, CPVC and ABS plastic pipe and fittings. Regular, medium, heavy bodied cements for use on pipe and fittings up to 15" diameter. Ideal for use with hot or cold potable water pressure systems, irrigation, conduit, pool and spas, industrial piping, sewer, drain waste and vent systems. Clear and purple primers for softening and preparing surfaces of pipe and fittings before applying solvent cement and for code verification. Fast acting **Hercules cleaner** removes surface dirt, grease and grime on pipes and fittings. An assortment of daubers and a brush are also available. Each product meets standards set by nationally recognized code-making standards and testing organizations. As designated on individual labels, these products meet standards set by the National Sanitation Foundation (NSF), the Uniform Plumbing Code of the International Association of Plumbing and Mechanical Officials (IAPMO) and the specifications of the American Society for Testing and Materials (ASTM). Cans of Hercules cements, primers and cleaner are available in sizes 1/4 pt. to 1 qt. and have dauber applicators for fast and easy installation. All Hercules cements, primers and cleaner are date-coded for shelf life and color-coded for easy selection.

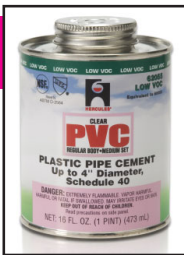
CPVC/PVC Cements

Polyvinyl chloride (PVC) cements are used for solvent welding PVC pipe and socket-type fittings. Hercules offers 5 different types of pvc cements with various setting speeds and viscosities. Chlorinated polyvinyl chloride (CPVC) cements are used for solvent welding CPVC tubing, and socket-type fittings. Hercules offers 2 different types of CPVC formulations.

Specifications

Plastic Pipe Cements

Cements for PVC



pvc cement, pink label

clear, regular body, medium set
For PVC Types I & II, potable water, DWV, and SW pipe and fittings up to 4" diameter. Schedule 40
Cement color: Clear
VOC Level: 510 gpl
Meets ASTM D2564
MSDS #119 & 363



| SIZES AND PACKING | | | |
|-------------------|---------|---------|-------------|
| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
| 60043* | 1/4 pt. | 12 | 4.3 lbs. |
| 60053* | 1/2 pt. | 12 | 7.8 lbs. |
| 60055** | 1 pt. | 12 | 14.7 lbs. |
| 60060** | 1 qt. | 12 | 27.5 lbs. |
| 60065 | 1 gal. | 6 | 53.6 lbs. |



pvc cement, blue label

clear, medium body, medium set
For PVC Types I & II, potable water, DWV, and SW pipe and fittings up to 6" diameter.
Schedules 40 and 80.
Cement color: Clear
VOC Level: 510 gpl
Meets ASTM D2564
MSDS # 92 & 367



| SIZES AND PACKING | | | |
|-------------------|---------|---------|-------------|
| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
| 60003* | 1/4 pt. | 12 | 4.3 lbs. |
| 60013* | 1/2 pt. | 12 | 7.8 lbs. |
| 60015** | 1 pt. | 12 | 14.5 lbs. |
| 60020** | 1 qt. | 12 | 27.5 lbs. |
| 60025 | 1 gal. | 6 | 53.2 lbs. |

*Dauber in cap **Jumbo Dauber in cap



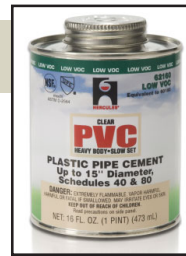
pvc cement, yellow label

clear, medium body, fast set
 For PVC Types I & II, potable water, DWV, and SW pipe and fittings up to 8" diameter. Schedules 40 and 80.
 Cement color: Clear
 VOC Level: 510 gpl
 Meets ASTM D2564
 MSDS #92 & 349



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60103* | 1/4 pt. | 12 | 4.3 lbs. |
| 60113* | 1/2 pt. | 12 | 7.8 lbs. |
| 60115** | 1 pt. | 12 | 14.9 lbs. |
| 60120** | 1 qt. | 12 | 27.5 lbs. |
| 60125 | 1 gal. | 6 | 53.0 lbs. |



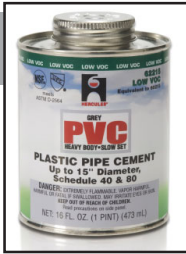
pvc cement, tan label

clear, heavy body, slow set
 For PVC Types I & II, potable water, DWV, and SW pipe and fittings up to 15" diameter. Schedules 40 and 80.
 Cement color: Clear
 VOC Level: 510 gpl
 Meets ASTM D2564
 MSDS #120 & 360



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60155* | 1/2 pt. | 24 | 15.6 lbs. |
| 60160** | 1 pt. | 12 | 14.6 lbs. |
| 60165** | 1 qt. | 12 | 27.6 lbs. |



pvc cement, gray label

gray, heavy body, slow set
 For PVC Types I & II, potable water, DWV, and SW pipe and fittings up to 15" diameter. Schedules 40 and 80.
 Cement color: Grey
 VOC Level: 510 gpl
 Meets ASTM D2564
 MSDS #93 & 364



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60210* | 1/2 pt. | 24 | 15.9 lbs. |
| 60215** | 1 pt. | 12 | 14.7 lbs. |
| 60220** | 1 qt. | 12 | 27.9 lbs. |
| 60225 | 1 gal. | 6 | 54.0 lbs. |



below-zero pvc cement, orange label

clear, regular body, fast set
 For PVC Types I & II, potable water, DWV, and SW pipe and fittings up to 6" diameter. Schedule 40. Withstands storage temperatures down to -10°F (-23°C).
 Cement color: Clear
 VOC Level: 510 gpl
 Meets ASTM D2564
 MSDS #122 & 361



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60142* | 1/2 pt. | 24 | 15.4 lbs. |
| 60145** | 1 pt. | 12 | 14.5 lbs. |
| 60148** | 1 qt. | 12 | 27.5 lbs. |



wet set pvc cement, aqua blue label

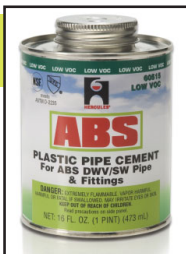
aqua blue, medium body, fast set
 For PVC Types I & II, potable water, DWV, and SW pipe and fittings up to 8" diameter. Schedules 40 and 80. Formulated for applications where conditions are wet and/or when quick pressurization is imperative. Ideal for lawn sprinkler and swimming pool installations.
 Cement color: Blue
 VOC Level: 510 gpl
 Meets ASTM D2564
 MSDS#94 & 368

SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60253* | 1/2 pt. | 12 | 7.4 lbs. |
| 60255** | 1 pt. | 12 | 13.7 lbs. |
| 60260** | 1 qt. | 12 | 28.7 lbs. |
| 60265 | 1 gal. | 6 | 54.2 lbs. |



Cements for ABS



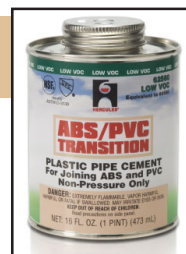
abs cement, green label

black, medium body, fast set
 For ABS potable water and DWV and SW pipe and fittings up to 8" diameter. Schedules 40 and 80.
 Cement color: Black
 VOC Level: 400 gpl
 Meets ASTM 2235
 MSDS #64 & 366



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60503* | 1/4 pt. | 12 | 4.1 lbs. |
| 60513* | 1/2 pt. | 12 | 7.4 lbs. |
| 60515** | 1 pt. | 12 | 13.6 lbs. |
| 60520** | 1 qt. | 12 | 25.7 lbs. |
| 60525 | 1 gal. | 6 | 49.5 lbs. |



abs/pvc transition cement, brown label

green, medium body, fast set
 For joining ABS to PVC pipe and fittings up to 6" diameter, non pressure only. Schedules 40 and 80.
 Cement color: Green
 VOC Level: 510 gpl
 Meets ASTM D3138
 MSDS #121 & 371



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60555* | 1/2 pt. | 24 | 15.5 lbs. |
| 60560** | 1 pt. | 12 | 14.5 lbs. |

*Dauber in cap **Jumbo Dauber in cap

Cements for CPVC



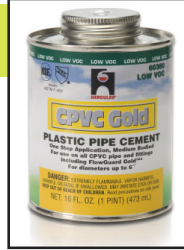
cpvc cement, orange label

orange, medium body, fast set
 CPVC potable water pipe and fittings to 8" diameter. All schedules.
 Cement color: Orange
 Meets ASTM F493
 VOC Level: 490 gpl
 MSDS #95 & 369



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60303* | 1/4 pt. | 12 | 4.4 lbs. |
| 60313* | 1/2 pt. | 12 | 8.0 lbs. |
| 60315* | 1 pt. | 12 | 14.7 lbs. |
| 60320* | 1 qt. | 12 | 28.0 lbs. |



cpvc gold, yellow label

gold, medium body, medium set
 One step, low V.O.C. cement for use on all CPVC pipe and fittings including FlowGuard GoldTM (for use on specific brands of CPVC pipe, verify suitability with pipe manufacturer). Schedules 40 and 80. Cement color: Gold, Meets ASTM F493, VOC Level: 490 gpl, MSDS #95 & 369



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60353* | 1/4 pt. | 12 | 4.4 lbs. |
| 60358* | 1/2 pt. | 12 | 8.0 lbs. |
| 60360* | 1 pt. | 12 | 14.7 lbs. |
| 60365* | 1 qt. | 12 | 28.0 lbs. |

Specialty Cement



multi-purpose cement, olive label

milky, medium body, fast set
 For potable water, DWV and SW pipe and fittings. For joining PVC, CPVC and ABS pipe and fittings up to 6" diameter. Schedules 40 and 80.
 Meets ASTM D2564, D2235, F493
 Cement color: Milky White
 VOC Level: 490 gpl, MSDS #96 & 370



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60703* | 1/4 pt. | 12 | 4.4 lbs. |
| 60713* | 1/2 pt. | 12 | 7.2 lbs. |
| 60715** | 1 pt. | 12 | 13.1 lbs. |
| 60720** | 1 qt. | 12 | 24.8 lbs. |
| 60725 | 1 gal. | 6 | 47.5 lbs. |

Plastic Pipe and Fittings Cleaner



plastic pipe and fittings cleaner, yellow label

clear
 For removing foreign matter and dirt from ABS, PVC, and CPVC pipe and fittings.
 VOC Level: 100 gpl
 Cleaner color: Clear
 MSDS #67

SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60652* | 1/4 pt. | 12 | 4.0 lbs. |
| 60659* | 1/2 pt. | 12 | 7.2 lbs. |
| 60664** | 1 pt. | 12 | 13.1 lbs. |
| 60667** | 1 qt. | 12 | 24.7 lbs. |
| 60669 | 1 gal. | 6 | 47.5 lbs. |

Primers



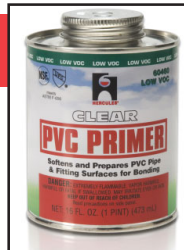
primer for pvc and cpvc, purple label

purple [Note: For use where plumbing codes require purple, rather than clear primers.] Recommended method to soften and prepare surface of PVC and CPVC pipe fittings (all sizes and schedules except copper tube size CPVC) before applying solvent cements. See cautions. Primer color: Purple, VOC Level: 510 gpl, Meets ASTM F656, MSDS #62 & 372



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60403* | 1/4 pt. | 12 | 4.1 lbs. |
| 60413* | 1/2 pt. | 12 | 7.4 lbs. |
| 60415** | 1 pt. | 12 | 13.7 lbs. |
| 60420** | 1 qt. | 12 | 25.9 lbs. |
| 60425 | 1 gal. | 6 | 49.8 lbs. |



pvc primer, red label

clear Recommended method to soften and prepare surface of PVC pipe and fittings (all sizes and schedules) before applying solvent cements. Primer color: Clear
 VOC Level: 510 gpl
 Meets ASTM F656
 MSDS #63 & 347



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60453* | 1/4 pt. | 12 | 4.1 lbs. |
| 60458* | 1/2 pt. | 12 | 7.3 lbs. |
| 60460** | 1 pt. | 12 | 13.4 lbs. |
| 60465** | 1 qt. | 12 | 25.3 lbs. |
| 60470 | 1 gal. | 6 | 48.6 lbs. |



pvc primer, lavender label

purple [Note: For use where plumbing codes require purple, rather than clear primers.] Recommended methods to soften and prepare surface of PVC pipe and fittings (all sizes and schedules) before applying solvent cements. See cautions. Meets ASTM F656, Primer color: Purple, VOC Level: 510 gpl, MSDS #70 & 345



SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|---------|---------|-------------|
| 60473* | 1/4 pt. | 12 | 4.1 lbs. |
| 60483* | 1/2 pt. | 12 | 7.3 lbs. |
| 60485** | 1 pt. | 12 | 13.4 lbs. |
| 60490** | 1 qt. | 12 | 25.3 lbs. |
| 60495 | 1 gal. | 6 | 48.6 lbs. |



UnPurple primer

clear Hercules UnPurple Primer For anywhere that regular purple primer can be used, but instead of being colored purple, a clear primer with a unique patented ultraviolet sensitive ingredient reveals its purple presence under UV light, helping to prevent staining and the resulting property damage. UnPurple Primer works identically to other PVC/CPVC primers. No new technique is involved in the installation or testing. Primer color: Clear, VOC Level: 510 gpl, Meets ASTM F656, MSDS #118 & 346

SIZES AND PACKING

| STOCK NO. | SIZE | PACKING | WEIGHT/CASE |
|-----------|-------|---------|-------------|
| 60445* | 1 pt. | 12 | 13.7 lbs. |
| 60447* | 1qt. | 12 | 17.2 lbs. |



*Dauber in cap **Jumbo Dauber in cap

Plastic Pipe Cements - Low V.O.C. Cements, Primers & Cleaners

APPROVALS AND LISTINGS

These Low-VOC products meet the requirements established by the same rules that have been adopted by LEED(r) (Leadership in Energy and Environmental Design). Cements and primers are NSF STD 61 and UPC approved, as noted on the previous pages.

SPECIFIC APPLICATIONS*

All cements, primers and cleaner can be used on PVC, CPVC, ABS and styrene pipe and fittings as specified on individual cements.

SPECIFIC USES

Use Hercules plastic pipe cements, primers and cleaner for bonding rigid and flexible plastic pipe and fittings.

WARNINGS OR CAUTIONS

- Plastic Pipe Cements and related products are necessarily formulated with flammable solvents and ingredients which are harmful or fatal if swallowed and hazardous when used with improper ventilation. Avoid contact with eyes or skin. Clear and detailed cautions appear on all labels of Hercules Plastic Pipe Cements and cleaner along with specific antidotes and recommended emergency treatment. It is suggested that all users familiarize themselves with the entire label, including precautions, prior to use. Use of a respirator is recommended where ventilation is limited.
- Use splash goggles or other suitable eye protection.
- Containers should be kept tightly closed when not in use, and covered whenever possible during use.
- DO NOT mix cleaner or primer with cement.
- DO NOT mix any Low V.O.C. cement, primer or cleaner with regular items.
- Do not use cement that is lumpy, curdled or thickened.
- Always keep this, and all other cements, out of reach of children.
- Plastic Pipe Cements, Primers and Cleaner should not be stored near heat or open flames, nor should they be allowed to freeze. Recommended temperature range for good shelf life should not go below 40°F or above 100°F. If cements are subjected to freezing temperatures during shipment or for other reasons, they may thicken or gel. If placed in a warm (not hot) area, they will return to useable original condition.
- Hercules Plastic Pipe Cements are made to be used as received in the containers provided. Never attempt to change their viscosity by adding thinner.
- Use caution:** Purple primers contain a dye which is difficult or impossible to remove from many surfaces.

* For special applications which may not be covered in this or other Hercules literature, please contact Hercules Technical Services Department by phone at 1-800-221-9330 or send a fax to 1-800-333-3456 or visit our web-site at www.herchem.com.

DIRECTIONS FOR USE

- Choose the cement appropriate for the pipe and fitting being used.
- Stir or shake cement well before using. Wear protective gloves when using solvent cement. Do not use vinyl gloves.
- Cut pipe square. If a pipe cutter is used, file off raised bead. Remove all burrs inside and outside pipe using a knife, file or reamer.
- Wipe end of pipe and inside of fitting with clean cloth to remove dirt, grease and moisture. Moisture may slow cure. Dirt or grease may prevent adhesion. Cleaner (not to be confused with Primers) may be used for removal of grease and other foreign matter. Do not apply cement or primer until pipe is clean and dry.
- Check dry fit of pipe and fitting. Pipe must enter at least 1/3 of the way for proper fit. If too tight, sand or file pipe to make good fit. Be sure pipe and/or fitting are not out of round. Pipe must bottom fully into fitting socket during final assembly with cement.
- For PVC and CPVC connections, use Hercules Primer to remove gloss from pipe end and inside of fitting. Apply primer with its own dauber. (ABS pipe should only be wiped clean with a dry cloth.)
- Apply a thin coat of the proper cement to outside of pipe and inside of fitting. Avoid getting excess cement past fitting socket. Then, quickly apply a liberal amount evenly on pipe end equal to socket depth. Since weather conditions affect priming and cementing action, repeated applications may be necessary before joining. In cold weather, more time is required for curing and full bond strength.
- While the cement is still wet, insert pipe into fitting with a 1/4 turn twist until it bottoms.
- Hold joint together 15 to 30 seconds (longer for larger pipe sizes) to prevent pipe from backing out of tapered socket. Check instructions on each specific cement for proper procedures.
- After assembly, wipe excess cement from joint with a clean cloth. Avoid disturbing or moving the joint.
- Allow sufficient time for good handling strength. This will depend on the temperature. On pressure lines, wait 24 hours or longer before applying full pressure. The presence of a strong solvent smell indicates the joint is not sufficiently cured. Short cure periods are satisfactory for high temperatures with low humidity, small pipe sizes and interference type fittings. Longer curing periods are necessary for low temperatures, larger pipe sizes, loose fits and high humidity. Do not try to speed up the cure by artificial means — this could cause porosity and blisters in the cement film.

| | |
|---------------------|--------------------------------------------------------------------------|
| For Delivery by Fax | Call 1-800-942-4636 |
| Internet | See MSDS section of www.herchem.com |
| Mail | Contact Hercules at address below or any Hercules representative |

AVERAGE NUMBER OF JOINTS per 1 QT. HERCULES CEMENTS

| Pipe Fitting Diameters | ½" | ¾" | 1" | 1¼" | 1½" | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 15" |
|------------------------|-----|-----|-----|-----|-----|----|----|----|----|----|-----|-----|-----|
| PVC Gray | 340 | 260 | 180 | 130 | 100 | 76 | 44 | 36 | 12 | 8 | 6 | 4 | 2 |
| PVC Clear Heavy Duty | 340 | 260 | 180 | 130 | 100 | 76 | 44 | 36 | 12 | 8 | 6 | 4 | 2 |
| PVC Clear Medium | 300 | 200 | 140 | 96 | 70 | 54 | 36 | 30 | 10 | 6 | - | - | - |
| PVC Clear Regular | 260 | 180 | 120 | 90 | 64 | 50 | 30 | 26 | 8 | - | - | - | - |
| PVC Clear "Below Zero" | 260 | 180 | 120 | 90 | 64 | 50 | 30 | 26 | 8 | - | - | - | - |
| ABS | 300 | 200 | 140 | 96 | 70 | 54 | 36 | 30 | 10 | 6 | - | - | - |
| CPVC / CPVC GOLD | 260 | 180 | 120 | 90 | 64 | 50 | 30 | 26 | 8 | - | - | - | - |
| MULTI-PURPOSE | 260 | 180 | 120 | 90 | 64 | 50 | 30 | 26 | 8 | - | - | - | - |
| ABS/PVC | 260 | 180 | 120 | 90 | 64 | 50 | 30 | 26 | 8 | - | - | - | - |
| PRIMER | 235 | 160 | 110 | 80 | 58 | 45 | 25 | 20 | 6 | - | - | - | - |



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