

Heat-shrinkable tape for sealing duct joints on round air conditioning or heating systems.

Product description

TWDB duct joint sealing tape (band).

Construction: Two-layer system:

First layer: Copolymer adhesive.

Second layer: Thick-walled, radiation-cross-linked, high density polyethylene.

TWDB is a hot applied duct sealing tape composed of heat-shrinkable backing with a heat resistant pressure sensitive, non-drip adhesive and a closure patch.

TWDB is installed using propane gas torches. The ducts are assembled and raised into position after installation. The tape is wrapped around the ducts where joined, a closure is then applied, allowing the tape to essentially form a tube or band around the joint. When heated in excess of 120°C (250°F), the tape shrinks tightly around the substrate of the joint area. During recovery, the adhesive softens and flows to form a tenacious bond with the substrate and to fill the irregularities such as the interlocking seams. The bond strength builds up during cool down and is fully retained after completion of the job. Mechanically strong, pressure tight seals are provided.

Note: TWDB is not intended to be used in industrial environments where organic solvents, oil or chemicals are present. For resistance to industrial chemicals, please contact your local sales engineer of Bery Plastics CPG representative.

Product features/benefits

- **No primer required**
No drying time and easy application.
- **Low preheat sensitivity & proven functionality**
Allows easy application combined with high functional performance.
- **High mechanical resistance backing**
TWDB resists to vibration in high velocity systems operating up to 70°C (158°F).
- **Minimal inventory cost**
TWDB's cut-to-length system eliminates the need for multiple sizes.
- **Specially formulated sealant**
Ensures a reliable protection.
Provides high peel and shear values after installation.
- **No special equipment or skills required**
Makes installation fast and easy.
Keeps installation costs low.

Product selection guide

	TWDB
Max. operating temperature	70°C (158°F)
Compatible line coatings	Joining galvanized ducts
Min. preheat temperature	Remove moisture + surface oil
Recommended pipe preparation	ST3
Soil stress restrictions	Not applicable

Product thickness

	TWDB
Backing (as supplied)	0.018 in. (0.45 mm)
Backing (fully free recovered)	0.022 in. (0.55 mm)
Adhesive (as supplied)	0.030 in. (0.75 mm)

Product properties: TWDB

Property	Test method	Typical value
Backing		
Tensile strength	ASTM D-638	3300 psi (22.8 MPa)
Ultimate Elongation	ASTM D-638	600%
Hardness, Shore D	ASTM D-2240	55
Shrink force	ASTM D-638 150°C (302°F)	40 psi
Dielectric strength	ASTM D-149	900 volts/mil (35 KV/mm)
Water absorption	ASTM D-570	0.05%

Property	Test method	Typical value
Adhesive		
Softening point	ASTM E-28	120°C (248°F)
Peel strength to galvanized steel	ASTM D-1000	21 lbs/in. width 37 N/cm
Shear strength	ASTM D-1002	750 psi 517 N/cm ²
System requirements		
Axial pull-out resistance	RUD 5047*	> 2200 N (495 lb)
Pressure rating	RUD 5047*	No leakage after 24hrs, at 0.1 bar, @ 50°C (122°F)

RUD 5047* Berry Plastics CPG Technical specification

Ordering information

TWDB type products are available:

- as a roll

Example: TWDB-2x165

		Standard ordering options
2	Sleeve width in inches	2" (50 mm), 3" (75 mm), 4" (100 mm)
165	Roll length in feet	165 ft (= 50 m)

- closure patches included

TWDB-	Closing patch quantity
2x165	150
3x165	60
4x165	30

Berry Plastics warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the technical data sheet when used in compliance with Berry Plastics written instructions. Since many installation factors are beyond the control of Berry Plastics, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Berry Plastics liability is stated in the standard terms and conditions of sale. Berry Plastics makes no other warranty either expressed or implied. All information contained in this technical data sheet is to be used as a guide and is subject to change without notice. This technical data sheet supersedes all previous data sheets on this product.



CORROSION PROTECTION GROUP

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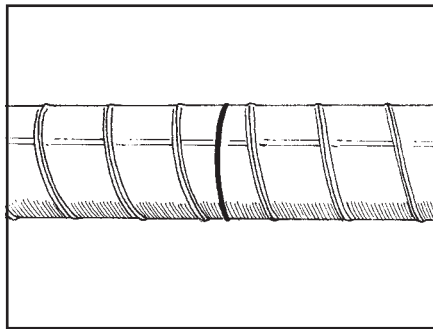


Materials and equipment

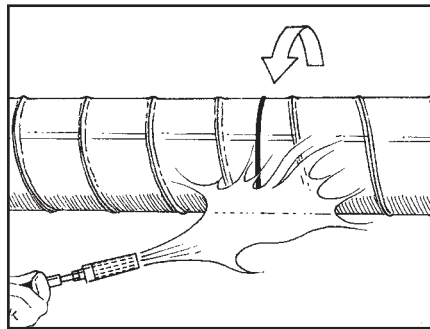
1. TWDB (supplied with high temperature closure tape)
2. Torch
3. Propane gas tank, regulator and hose
4. Gloves

Recommended TWDB tape widths

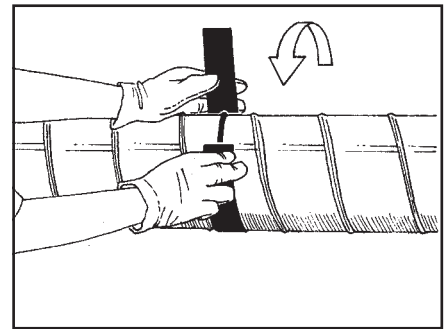
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|------------------------|-----------|
| Duct to Fitting to 24" | -2" width |
| Duct to Fitting > 24" | -3" width |
| Duct to Duct ≥ 12" | -2" width |
| Duct to Duct 14-48" | -3" width |
| Duct to Duct > 48" | -4" width |



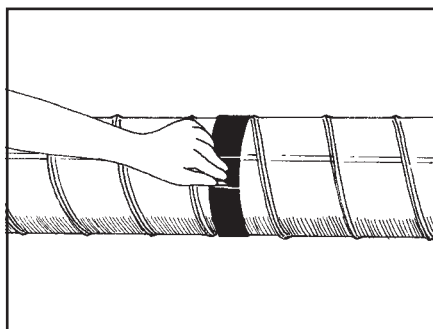
Join duct sections using internal couplers or crimped end male/female type connection. Apply sheet metal screws. 2 screws 180° apart are usually sufficient.



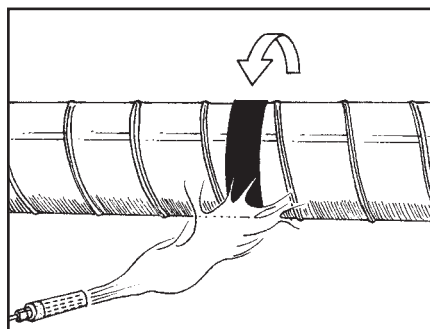
Wipe joint area to remove foreign materials. Preheat joint to remove moisture and burn off surface oil that may be present.



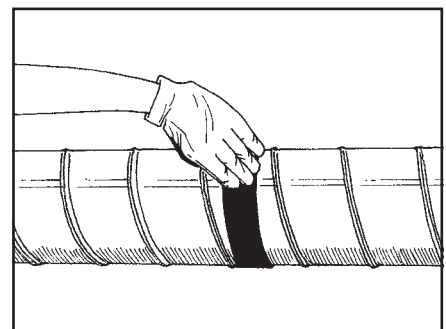
Cut TWDB to appropriate length. See sizing chart on reverse side. Center TWDB and wrap around duct joint.



Using high temperature tape, secure the loose TWDB end by taping in place.



Using a standard propane torch, heat TWDB on all sides until it has shrunk uniformly and adhesive is showing at each end.



Smooth down the overlap area with gloved hand to ensure proper contact to duct. Note: See reverse side for rectangular and flat oval duct.

TWDB

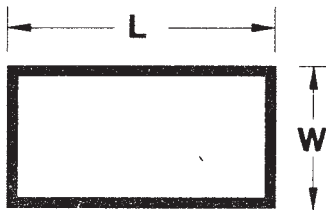
TWDB sizing chart

Round duct

* Cut length includes a 2 inch overlap required to insure proper sealing.

Duct size	TWDB cut length*	Duct size	TWDB cut length
2"	9"	30"	97"
3"	12"	32"	103"
4"	15"	34"	109"
5"	18"	36"	115"
6"	21"	38"	122"
7"	24"	40"	128"
8"	28"	42"	134"
9"	31"	44"	141"
10"	34"	46"	147"
11"	37"	48"	153"
12"	40"	50"	160"
14"	46"	52"	166"
16"	53"	54"	173"
18"	59"		
20"	65"		
22"	72"		
24"	78"		
26"	84"		
28"	90"		

Rectangular duct

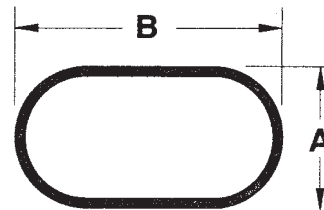


TWDB may be used to seal rectangular ducting. The proper length to cut is shown below.

Length of TWDB
 $= 2 + \text{Perimeter}$
 $= 2 + 2(L+W)$
 Dimensions in inches.

Note:
 Be sure to measure outer dimensions as size on print often refers to internal dimensions.

Flat oval duct



TWDB may be used to seal flat oval ducting. The proper length to cut is shown below.

Length of TWDB
 $= 2 + \text{Circumference}$
 $= 2 + 2.2\sqrt{A^2 + B^2}$
 Dimensions in inches.

Note:
 Be sure to measure outer dimensions as size on print often refers to internal dimensions.

Rectangular size	Length of TWDB (inches)
6 x 4	22
6 x 6	26
8 x 4	26
8 x 6	30
8 x 8	34
10 x 4	30
10 x 6	34
10 x 8	38
10 x 10	42
12 x 4	34
12 x 6	38
12 x 8	42
12 x 10	46
16 x 8	50
16 x 12	58
16 x 16	66
20 x 8	58
20 x 12	66
20 x 16	74
20 x 20	82

Flat oval	Length of TWDB (inches)
3 x 8	21
3 x 9	23
3 x 11	28
3 x 12	30
3 x 14	34
3 x 15	36
4 x 7	20
4 x 9	24
4 x 10	26
4 x 12	31
4 x 13	33
4 x 15	37
6 x 8	25
6 x 9	26
6 x 11	30
6 x 12	32
6 x 14	36
8 x 10	31
8 x 11	33
8 x 13	36
10 x 12	37

Note:

Install TWDB on rectangular and flat oval duct following the procedures for round duct with the following additional step: Immediately after shrinking is complete, press down the still hot TWDB with roller or gloved hand on flat sections.