



Eaton Synflex - Mantua Plant

10585 Main Street
Mantua, Ohio 44255

Title: **PRODUCT STANDARD**
34PW Pure Water Hose

Product: **34PW**
Revision: 7/16/04
Page No.: 1 of 7

PRODUCT STANDARD
34PW PURE WATER HOSE



Eaton Synflex - Mantua Plant

10585 Main Street
Mantua, Ohio 44255

Title: **PRODUCT STANDARD**
34PW Pure Water Hose

Product: **34PW**
Revision: 7/16/04
Page No.: 2 of 7

1.0 SCOPE:

This standard covers a thermoplastic hose with a specially formulated core tube for transfer of pure water, distilled water, deionized water, and other applications that require very low transmission of contaminants within a temperature range of -10°F to +150°F. This product will meet or exceed the performance criteria set forth in this standard. Operating temperatures or pressures in excess of those recommended in this standard may materially reduce the life of the hose.

2.0 CONSTRUCTION:

Tube The tube is a smooth, seamless dual walled construction with a Polyolefin liner and Thermoplastic backing.

Reinforcement The reinforcement consists of one or more braided plies of Polyester fiber which are bonded to the core tube.

Cover The cover consists of a smooth, seamless extruded jacket of Polyurethane that is bonded to the fabric reinforcement.

3.0 PRODUCT IDENTIFICATION:

SYNFLEX® 34PW-24 PURE WATER HOSE W.P. 500 P.S.I. (34 BAR) EATON

The product is identified by marking that appears longitudinally on the cover of the product. The standard ink color is black. The text of the standard marking is shown in the following example; however private marking of the product is available upon special request.

In addition to the marking text the product is lot numbered for manufacturing traceability.



Eaton Synflex - Mantua Plant

10585 Main Street
Mantua, Ohio 44255

Title: **PRODUCT STANDARD**
34PW Pure Water Hose

Product: **34PW**
Revision: 7/16/04
Page No.: 3 of 7

4.0 DIMENSIONS AND PRESSURES:

TABLE 1

Nom. I.D.	Hose Dash Size	Nom. I.D.	Max. O.D.	Min. Bend Radius	Max. Oper. Press	Min. Burst Press	Weight Per 100 Ft. (Lb.)
1/4	-04	.255	.520	1.25	2750	11,000	6.41
3/8	-06	.385	.655	2	2250	9,000	8.98
1/2	-08	.502	.812	3	2000	8,000	12.19
5/8	-10	.635	.980	4	1500	6,000	22.10
3/4	-12	.745	1.140	5	1500	6,000	24.75
1	-16	1.010	1.456	8	1500	6,000	37.26



Title: **PRODUCT STANDARD**
34PW Pure Water Hose

Product: **34PW**
Revision: 7/16/04
Page No.: 4 of 7

5.0 QUALIFICATION TESTS:

To meet the qualification requirements for this hose standard, the hose and/or hose assemblies made using this hose and all applicable couplings shall conform to the following tests and requirements.

5.1 Dimensional Test and Visual Examination:

All hose shall conform to the dimensions detailed in Table 1 of this standard and all hose shall be visually examined per the latest issue of SAE J343.

5.2 Proof Test:

The hose or hose assembly shall show no indication of failure or leakage when pressurized to two times the working pressure listed in Table 1. This test shall be performed in accordance to the most current issue of SAE J343.

5.3 Change in Length Test:

The change in length shall not exceed $\pm 2\%$ when tested per the latest issue of SAE J343.

5.4 Burst Test:

The hose shall not leak or fail at a pressure less than four times the maximum working pressure listed in Table 1. This test shall be conducted in accordance to the latest issue of SAE J343.

6.0 INSPECTION TESTS:

The following tests are to be performed on samples representing each production lot of hose. A production lot is defined as one shifts' production (8-12 hrs.). Requirements shall be the same as the corresponding qualification tests:

1. Dimensional Test and Visual Examination per SAE J343.
2. Proof Test per SAE J343.
3. Change in Length Test per SAE J343.
4. Burst Test per SAE J343.



Title: **PRODUCT STANDARD**
34PW Pure Water Hose

Product: **34PW**
Revision: 7/16/04
Page No.: 5 of 7

7.0 ADDITIONAL HOSE INFORMATION:

Contaminants Transmission

The polyolefin core tube liner of this product series has an exceedingly low extractables characteristic based on work the U.S. Navy (NSSC) had done to procure a hose product for handling pure and controlled pure water to ships. Leachable organic carbon compounds were less than .01 milligrams per gram of core tube at both ambient and 110°F as determined after 96 hour test.

I.D.	Leachable Organic Carbon (PPM)	Leachable Halides (PPM)	Leachable Halogenated Organics (PPM)
1/2"	24.0 Max.	2.4 Max.	1.2 Max.
3/4"	16.0 Max.	1.6 Max.	0.8 Max.
1"	12.0 Max.	1.2 Max.	0.6 Max.

8.0 HOSE ASSEMBLY INFORMATION:

8.1 Coupling Information:

Couplings and assembly equipment from other manufacturers may not be interchangeable with Synflex hose. Therefore, unless explicitly stated by Synflex Engineering, only the couplings and assembly equipment listed in Table 2 should be used:

TABLE 2
Stainless Steel Couplings; Swaged

Nom. I.D.	Hose Dash Size	Coupling* Part Number **	Die Part Number	Insert Depth	Swage Dia.	Bell Length
1/4	-04	390A-04XXX	4540-30400	1-1/16	.568	.688
3/8	-06	390A-06XXX	4540-30600	1-1/4	.694	.750
1/2	-08	390A-08XXX	4540-30800	1-1/2	.848	.750
5/8	-10	390A-10XXX	4540-W10B0	1-9/16	.925	.830
3/4	-12	390L-12XXX	4540-H1200	1-11/16	1.165	.750
1	-16	390L-16XXX	4540-B1600-	2-1/16	1.455	.805

* The last three digits of the coupling part number describe the end style of the coupling and are found in the Synflex Sales Catalog. The 390A and 390L style couplings are made from 316 Stainless Steel. Other materials are available and are listed in the Synflex Sales Catalog.

** Refer to the Synflex Sales Catalog for the pusher that corresponds to the particular style of end connection.



Eaton Synflex - Mantua Plant

10585 Main Street
Mantua, Ohio 44255

Title: **PRODUCT STANDARD**
34PW Pure Water Hose

Product: **34PW**
Revision: 7/16/04
Page No.: 6 of 7

WARNING

SAFETY PRECAUTIONS FOR
SYNFLEX HOSE ASSEMBLIES

YOUR PERSONAL SAFETY MAY DIRECTLY OR INDIRECTLY BE AFFECTED IF THE HOSE ASSEMBLY HAS BEEN ABUSED.

The following **WARNINGS** pertain to the more common abuses of this hose and hose assemblies.

1. **INSPECT** the hose assembly before each use.
2. **REPLACE** the hose assembly immediately if:
 - A. The jacket of the hose appears abnormal.
 - B. You have reason to believe it may be abnormal.
 - C. There is any fluid leakage.
 - D. The couplings are damaged.
 - E. The hose is damaged.
 - F. The reinforcement is visible through the jacket.
3. DO NOT **EXCEED** the maximum recommended working pressure of the hose.
4. DO NOT **KINK** the hose assembly.
5. DO NOT **BEND** the hose assembly beyond its maximum recommended bend radius.
6. DO NOT **EXPOSE** to temperatures in excess of the maximum temperature rating of the hose or the fluid being conveyed.
7. DO NOT USE AS A **STRENGTH MEMBER** for pulling or lifting equipment.
8. DO NOT EXPOSE HOSE TO **FLUIDS** other than those outlined in the Synflex Chemical Resistance Chart or specifically approved by Synflex Engineering.
9. Use ONLY Synflex **COUPLINGS**.
10. Use ONLY **ASSEMBLY EQUIPMENT** and procedures approved by Synflex.

Changes:(11/12/93)(C97-4540;8/5/97)(C99-6113;2/22/99)(C00-7169;7/20/00)(C01-7701;8/15/01)(C04-9666)(C04-9721)