

Next Generation OPW FlexWorks Pipe Important Information and FAQ

Why a new pipe?

Voice of the Customer Take-Aways:

- Request for official UL971 Concentrated Fuels Certification.
- Request for increased Pipe Flexibility and Reduced Memory (particularly in cold weather).

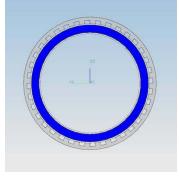
Certification Timing:

- Concentrated Fuels Certification requires a completely new 270 day UL971 testing program.
- Decision was taken to enhance the pipe design in accordance with the VOC prior to submission.
- UL971 Certification Received April, 2011

New Pipe Product Enhancements:

- Increased Flexibility/Reduced Memory/Reduced Weight to enhance installation ease.
- Force required to bend the pipe has been reduced significantly to facilitate piping layout
- Inherent pipe memory has been reduced significantly to facilitate connection of pipes inside sumps.
- Pipe weight has been reduced to facilitate shipping and handling (1.5" pipe is 18% lighter)
- Next Generation enhanced KYNAR incorporated into new pipe liner
 - Provides improved processability for enhancement of the chemical bond.
- Enhanced Leak Detection Performance:
 - o Interstitial space was redesigned to provide faster leak detection.
 - o A leak from the primary pipe into the secondary will migrate to a containment sump more than twice as fast in the new pipe versus the old

Interstice Profile





C15 C15A

Questions:

- 1. How does the new pipe compare to the current pipe?
 - Both pipes have KYNAR liners and covers.
 - KYNAR is among the most dense and inert thermoplastics in existence.
 - o KYNAR has a 50 year track record of stellar performance with the most aggressive applications and chemicals.
 - o KYNAR provides the best chemical resistance, permeation barrier, and long term performance with all fuels and additives, including alcohols and bio-fuels.
 - o KYNAR has been used with great success in OPW fuel pipes since our entry into the market in 1997.
 - Both pipes are compatible and warranted for use with all fuels
 - The new pipe carries the additional UL971 certification for concentrated fuels as well as a supplemental test commissioned by OPW specifically for E85.
- 2. What approvals does the new pipe have? The new pipe has the additional concentrated fuels UL listing as shown below:

Motor Vehicle Fuels		High Blend Fuels	
$\overline{\checkmark}$	100% ASTM Reference Fuel No. 2	$\overline{\checkmark}$	50% Reference Fuel C - 50% Methanol
$\overline{\checkmark}$	100% ASTM Reference Fuel C	$\overline{\checkmark}$	50% Reference Fuel C - 50% Ethanol
\checkmark	85% Reference Fuel C - 15% MTBE		
\checkmark	85% Reference Fuel C - 15% Methanol		
\checkmark	70% Reference Fuel C - 30% Ethanol		
Concentrated Fuels		Aviation and Marine	
\checkmark	100% Methanol		100% Premium Leaded Gas
\checkmark	100% Ethanol	$\overline{\checkmark}$	100% Kerosene

3. Does the new pipe require different fittings?

☑ 100% Toluene

- NO, there is no change in fittings. All current fittings are interchangeable with both pipes.
- 4. What are the part numbers for the new pipe?
 - An "A" has been added to the prefix on all FlexWorks pipe product numbers to designate the new pipe (i.e. "C15"now becomes "C15A" and so on). All length designations remain the same.
- 5. When will the new pipe be available?
 - The new pipe will begin shipping in June as a running change. Pipe orders in the system will be automatically converted to the new pipe as it becomes available.
- 6. Is there a price increase for the new pipe?
 - NO. We expect improvements in processability to offset the increased cost of the Next Generation KYNAR liner material.