



DOW™ UF and RO Technology Help Produce Soft Drinks



DOW™ Ultrafiltration (UF) modules and DOW FILMTEC™ elements have been installed to purify well water used as process water for soft drink production.

Fast Facts

Country:	Spain	
End-User:	Beverage Industry	
Feed Water Quality:	Well Water	
	Conductivity ~1,000 µS/cm; TSS: 5 mg/L Turbidity: 5 NTU; SDI > 5	
Membrane Type:	DOW™ UF SFP-2880	DOW FILMTEC™ LE-400i
Total # of Elements:	45	72
Plant Design Info:	3 racks with 15 modules	
Plant Capacity:	200 m³/h (4,800 m³/day)	70 m³/h
Recovery:	> 95%	75%
Product Water Quality:	Turbidity < 0.03 NTU (Ultrafiltrate)	
Temperature Range:	10-20°C	
Start-Up Date:	June 2010	

Performance

- Filtration Cycle Duration: 60 minutes
- Operating Flux: 65 L/m²h
- Trans-Membrane Pressure (TMP) at 20°C: 0.40 bar
- No Chemically Enhanced Backwash (CEB) needed.

Operating Conditions UF – Summary Table

Parameter	Frequency	Duration	Chemical Consumption
Filtration	—	60 min	—
Air Scour	Every 60 min	20 s	—
Backwash	Every 60 min	60 s	0.2 – 0.3 ppm ClO ₂
Forward Flush	Every 60 min	60 s	—
CEB ^a	None	None	—
CIP ^b	—	—	<i>Alkaline:</i> 0.05% NaOH, 0.2% NaOCl <i>Acid:</i> 2% citric acid

^aChemically Enhanced Backwash

^bClean-in-Place