

DARAK[®] 5000 & 5005

DARAK[®] 5000 & 5005 is a microporous duroplastic separator. DARAK's combination of properties, including high temperature stability, low electrical resistance and very low acid displacement, makes DARAK 5000 & 5005 the best choice for flooded stationary, submarine, and high power traction batteries, as well as other high power applications.



Advantages

- Used in flooded lead-acid batteries
- Proven reliability in over 30 years of commercial use
- Ease of handling (manual or fully automated)
- Available in various profile designs and dimensions
- High porosity and small average pore size (microporous)
- Low acid displacement and electrical resistance
- Low level of trace elements
- High overall thickness (available up to 4.75 mm)
- Resistant to cracking under mechanical forces

Benefits

- Approved separator for flooded stationary, submarine, high power traction and other high power batteries
- High oxidation resistance ensures long battery life
- Rapid separator wet-out with electrolyte
- Not susceptible to corner breaks
- Mechanically stable under compression and temperature
- PVC-free (does not release chlorides to the electrolyte, no issues with recycling, no potential corrosion issues)

DARAK 5000 & 5005

Table 1: DARAK® 5000 & 5005 separator size range*

	Unit	DARAK® 5005	DARAK® 5000
		Typical dimensions	
Backweb Thickness	[mm]	0.50	0.60
Height	[mm]	87 - 1250	87 – 1250
Width	[mm]	65 – 800	65 – 800
Overall Thickness	[mm]	0.80 – 4.40	0.90 – 4.50
with Glass Mat 04**	[mm]	1.35 – 4.65	1.45 – 4.75

* DARAK® separators can be tailor-made to fit into any cell

**DARAK® separators also available with other glass mat thicknesses

Table 2: Key Properties of DARAK® 5000 & 5005

Attribute	Unit	DARAK® 5005	DARAK® 5000
		Typical values*	
Backweb Thickness	[mm]	0.5	0.6
Porosity	[%]	70	70
Electrical Resistance	[Ω cm ²]	0.10	0.11
Acid Displacement	[ml/m ²]	220	240
Wettability	[sec]	4	5

* depending on profile and thickness

Table 3: Comparison of Key Properties of Industrial Separators

Attribute	Unit	DARAK® 5005	DARAK® 5000	PE	Micro- PVC	Sinter PVC	Rubber
		Typical values					
Overall Thickness	[mm]	2.0	2.0	2.0	2.0	2.0	2.0
Backweb Thickness	[mm]	0.5*	0.6*	0.5	0.7	0.5	0.8
Porosity	[%]	70	70	58	70	35	52
Electrical Resistance	[Ω cm ²]	0.10	0.11	0.25	0.16	0.30	0.25
Acid Displacement	[ml/m ²]	220	240	350	250	350	400
Average Pore Size	[μ]	0.5	0.5	0.15	0.4	15	0.8

* DARAK is also available with a backweb thickness of 0.35 mm (DARAK® 2003) and 0.40 mm (DARAK® 2000)



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