Pool Guard
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POOL WATER EVAPORATION CHART — DAILY, MONTHLY & ANNUAL BENCHMARKS

Climate-based evaporation reference for residential swimming pools

DAILY POOL EVAPORATION BENCHMARKS

CLIMATE TYPE	TYPICAL DAILY EVAPORATION	WEEKLY RANGE	NOTES
DRY / ARID (AZ, NV, NM)	⅜–½ INCH	2–3 INCHES	HIGH SUN, LOW HUMIDITY, WIND-SENSITIVE
HUMID SUBTROPICAL (FL, TX, GA)	⅛–¼ INCH	1–1.5 INCHES	HUMIDITY SUPPRESSES EVAPORATION
COASTAL / NORTHEAST	¼ INCH (SUMMER)	1–2 INCHES	WINTER LOSS STILL POSSIBLE
WINDY CONDITIONS (ANY CLIMATE)	+50–200%	—	WIND ≥10 MPH CAN TRIPLE LOSS

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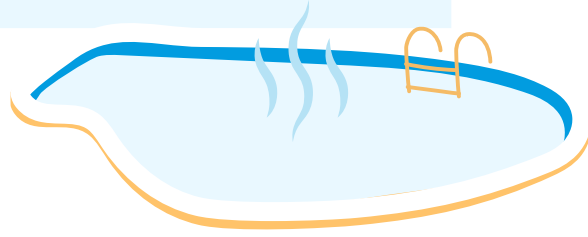
INCHES → GALLONS CONVERSION

GALLONS LOST PER INCH OF WATER DROP

POOL SIZE	GALLONS LOST PER 1 INCH
10,000 GAL	~620 GALLONS
15,000 GAL	~930 GALLONS
20,000 GAL	~1,240 GALLONS
25,000 GAL	~1,550 GALLONS
30,000 GAL	~1,860 GALLONS

Formula: Surface Area (sq ft) × 0.62 × Inches Lost



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QUICK “NORMAL VS PROBLEM” CHECK

This prevents panic and misdiagnosis.

WATER LOSS RATE	INTERPRETATION	ACTION
¼–½ INCH/DAY	NORMAL EVAPORATION	NO ACTION NEEDED
>1 INCH/DAY	ABNORMAL	MONITOR + BUCKET TEST
>2 INCHES/DAY	LIKELY LEAK	CALL PROFESSIONAL

Why Covers Matter?

A pool cover can reduce evaporation by 70–95%, making it the single most effective water-saving measure.

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COST & CONTROL

TYPICAL MONTHLY EVAPORATION (400 SQ FT POOL)

Monthly & annual evaporation by season:

SEASON	DRY CLIMATE	HUMID CLIMATE	COASTAL
SPRING	7–9 IN	5–6 IN	4–5 IN
SUMMER	10–12 IN	6–8 IN	6–7 IN
FALL	5–7 IN	4–5 IN	4–6 IN
WINTER	2–4 IN	2–3 IN	3–4 IN

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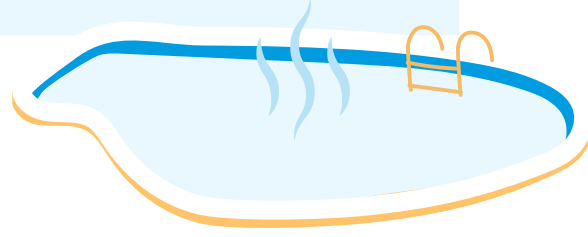
ANNUAL COST OF POOL EVAPORATION

ESTIMATED ANNUAL COST (400 SQ FT POOL)

COST CATEGORY	ANNUAL COST RANGE
WATER REPLACEMENT	$200–600
HEATING ENERGY	$300–1,200
CHEMICALS	$150–400
TOTAL ANNUAL COST	**$650–2,200**



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EVAPORATION REDUCTION & ROI

BEST WAYS TO REDUCE POOL EVAPORATION

METHOD	EVAPORATION REDUCTION	ROI
AUTOMATIC SAFETY COVER	85–95%	VERY HIGH
SOLAR COVER	90–95%	HIGH
WINDBREAKS	20–40%	MODERATE
LOWER WATER TEMP	10–25%	HIGH
AUTOMATION	VARIABLE	HIGH

If your pool's evaporation exceeds these benchmarks, the issue may not be weather—it may be exposure, temperature, or lack of coverage.

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