

Barrel Racing Arena Sand Spec

Engineered for high-speed traction, turn stability, and a fast surface.

Sand Specification

Specification	Recommended Range
Sand Type	Washed silica, sub-angular
Particle Size (D50)	0.30 – 0.55 mm (medium)
Gradation	Well-graded; firm pack required
Fines Content (<0.075 mm)	4% – 8% by weight
Particle Shape	Sub-angular for lateral grip at speed
Hardness (Mohs)	≥ 6.5 silica
Footing Depth	2.5 – 3.5 inches — shallower than english disciplines
Base	Tightly compacted stabilized aggregate base
Moisture Target	10% – 14% — LOCK + irrigation for cohesion in turns
Recommended Additives	FIBR for turn-pocket stability, moderate LOCK, minimal FLEX. Arena Green™ speed blend on request.

Why This Spec Works

- Firmer, shallower profile keeps the horse efficient at speed without sinking through turns.
- FIBR prevents cupping and rut formation in the pocket around each barrel.
- Sub-angular grains deliver reliable lateral grip without slipping out.

Outdoor-Specific Considerations

- Re-pack and re-water turn pockets before each run when possible.
- Crown base 1% with positive drainage; standing water in pockets is dangerous.
- Inspect for ruts after every event; refresh barrel pockets monthly under heavy use.

Common Failure Modes to Avoid

- **Too deep:** slows the horse and increases soft-tissue injury risk.
- **Rounded sand:** slips out under lateral load in turns.
- **No FIBR:** rapid rut formation around barrels.

Need a tuned ArenaSpec™ for your facility?

Every arena is different. Climate, base condition, traffic, and discipline intensity all change the ideal blend. Request a custom ArenaSpec™ Report Card at performancefooting.com or call 877-835-0878.

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