FLOOR SYSTEM GUIDE
FOR EXTREME ENVIRONMENTS

FLOORING FOR EXTREME ENVIRONMENTS: SYSTEM SELECTION & SPECIFICATION GUIDE

Choosing the correct flooring system for environments that are exposed to extreme conditions space is a critical decision. Making an informed and appropriate system choice will help you to avoid costly downtime, safety hazards, and premature failure. This guide is designed to help contractors, and facility managers quickly identify the right system for their environment. Use the selector table to narrow down your options, compare system performance at a glance, and review key build specs for each recommended solution.

SYSTEM SELECTOR TABLE

Condition/Challenge	Recommended System
Heavy forklift traffic	SLABHARD Slurry or HD Trowel
Damaged or spalled concrete	SLABHARD HD Trowel
Frequent hot washdowns	CastorCrete SL
Extreme thermal cycling	CastorCrete TG
Fast install window needed	CastorCrete TG
Slip resistance required	Any (with silica broadcast)

SYSTEM COMPARISON MATRIX

System	Build Type	Traffic Load	Thermal Shock	Chemical Resistance	Install Complexity
SLABHARD Slurry	Broadcast	High	Moderate	Moderate	Moderate
SLABHARD HD	Troweled	Very High	Low	Moderate	High (Skilled Labor)
CASTORCRETE SL	Urethane	High	High	High	Moderate
CASTORCRETE TG	Broadcast	Very High	Very High	High	High

SLABHARD SLURRY BROADCAST SYSTEM

Use Case: Forklift traffic, production areas, logistics centers
Build Type: Broadcast
Recommended Prep: Diamond grind or shot blast
System Build:
Primer: SLABREZ GPE
Slurry: SLABREZ GPE & Silica Sand (Slurry Filler)
Broadcast: Silica or Aluminum Oxide
Grout Coat: SLABREZ GPE
Top Coat: SLABSEAL 300

IMPORTANT SYSTEM DETAIL

Prior to installation of these systems, it is essential to address any cracks within the slab. In addition, joint filling must be completed as the final step in the installation process. Cracks and joints are the most common points of failure when exposed to thermal cycling, moisture intrusion, and heavy mechanical stress. These steps helps prevent delamination, movement-related damage, and premature failure. This is a critical component of long-term performance in demanding environments. For questions about which joint filler is best for your system, please contact your Desert Polymer Flooring representative.

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SLABHARD SLURRY BROADCAST SYSTEM

Performance Features:

✓ High abrasion resistance
✓ Moderate chemical resistance
✓ Durable under forklift traffic and rolling loads

Optional Add-ons: Slip-resistant texture, color coat, fast-cure option

CASTORCRETE SL URETHANE SLURRY SYSTEM

Use Case: Food & beverage, wash-down areas, chemical processing
Build Type: Urethane Slurry
Recommended Prep: Shot blast to CSP 3–4
System Build:
Slurry: CastorCrete SL @ 3/16"
Broadcast: Silica Sand
Top Coat: CastorCrete TC @ 20 mils
Performance Features:

✓ Excellent thermal shock and chemical resistance
✓ Smooth finish with high durability
✓ Resistant to wash-downs and harsh cleaners

Optional Add-ons: Color topcoats, anti-slip finish

SLABHARD HD TROWELED EPOXY MORTAR SYSTEM

Use Case: Spalled or damaged concrete in high-impact environments
Build Type: Troweled
Recommended Prep: Deep mechanical profile (CSP 4–5)
System Build:
.Primer: SLABREZ GPE
.Mortar: SLABREZ GPE & Graded Silica Sand
.Grout Coat: SLABFLEX 300 Thixotropic
.Build Coat: SLABREZ GPE
.Top Coat: SLABSEAL 300
Performance Features:

.✓ Maximum impact resistance
.✓ Best for uneven or damaged substrates
.✓ Long service life in aggressive conditions

Optional Add-ons: Cove base, slip-resistant topcoat, fast-cure option

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CASTORCRETE TG - TROWELED SYSTEM

Use Case: Extreme thermal cycling, short install windows
Build Type: Troweled
Recommended Prep: Shot blast to CSP 5+
System Build:
Trowel Coat: CastorCrete TG
Performance Features:
✔ Highest thermal shock performance
✔ Excellent chemical and moisture resistance
✔ Ideal for extreme abuse and aggressive cleaning environments
Optional Add-ons: Rapid cure topcoat, slip-resistant texture, integrated cove base

NEED HELP CHOOSING THE RIGHT SYSTEM?

Still not sure which system fits your project? Our technical support team can help you evaluate site conditions, recommend a system, or assist in creating a spec that meets your performance goals.

📞 Call us at 877-376-9994
✉️ Email: info@desertpolymerflooring.com
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