



The massive 1.5 million square foot distribution center
Washington, USA

How a high quality concrete floor hit the mark.

When a nationwide retailer, needed a new distribution center to supply stores throughout the Pacific Northwest, they set their sights high.

“Eclipse Floor technology performed very well, meeting both the owner's and contractor's expectations.”

Michael Wagy
 Sales Representative
 Glacier Northwest

They demanded highly durable construction for their massive facility's floor to stand up to the heavy use of a bustling retail warehouse operation. And their aggressive schedule called for rapid construction without sacrificing quality.

Among the most challenging areas were the floor's high-speed slab-on-ground drive aisles. These soon-to-be busy routes needed to withstand traffic from the heavy machinery and loads required to transport the company's enormous inventory. So the drive aisles needed to be smooth

and strong — with extended joint spacing to minimize bumps and reduce costs. That's because fewer joints lower the costs of cutting and filling joints, and minimizes future costs as joints wear and require maintenance.

The representatives at the company knew about Grace's Eclipse® Floor technology from other projects, so they readily understood the advantages of the innovative mix design developed by the project's contractors, engineer, and supplier.



With Eclipse[®], the job was as smooth as the floor — with no drying shrinkage cracks and no joint edge curling.

“Eclipse allowed slabs to be designed with extended joint spacing, eliminating intermediate saw cuts,” said Michael Wagy from Glacier Northwest. Using Eclipse Floor shrinkage reducing admixture, concrete was placed in the 26-foot wide high-speed drive aisles with joints up to 860 feet apart. Just as expected, a seven-day wet cure produced a smooth, durable floor with no drying shrinkage cracks and no joint edge curling.

The mix included Grace's ADVA[®] 100 Superplasticizer to increase the workability of the concrete during placement. ADVA kept production moving quickly and kept the job up to specifications by eliminating the need to add water that could increase shrinkage and cracking.

The final results were right on target for everyone involved. The nationwide retailer received the highest quality finished slabs with the durability and extended joint spacing they needed. And the contractors' reputations were enhanced, giving them the inside track for future work.

“After years of using Eclipse to reduce shrinkage in unreinforced floor slabs, we discovered Eclipse can significantly improve the performance of our jointless slab designs. Instead of a floor marred by multiple hairline cracks, we can get a floor that is smooth, jointless, and nearly crack-free.”


Ed Silver
Structural Engineer
Silver & Associates



The use of Eclipse[®] Floor enabled extended joint spacing in busy high-speed drive aisles and created a durable, low maintenance surface.

Project Credits:

Project: Distribution Center, WA
Concrete Supplier: Glacier Northwest, Tacoma, WA
Structural Engineer: Silver & Associates, Los Angeles, CA
General Contractor: Skanska, U.S.A.
Concrete Contractor: Rainier Floor Finishes, Seattle, WA
Admixture Supplier: Grace Construction Products

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