

Helping Aspiring Engineers Serve Their Community

SUMMARY

In 1999, The Center for Service and Learning was established on the Brigham Young University (BYU) campus providing programs that allow students to apply what they learn in the classroom to real world projects while meeting a need within the community. The center offers 63 community service programs, many of which are partnered with non-profit groups. Annually, over 20,000 students volunteer over 120,000 hours of service.

Adding to those impressive totals, students from the BYU Civil and Environmental Engineering program participated in a service learning project to help a local elderly couple whose driveway had fallen into a state of disrepair and needed to be replaced.

A former Dayton Superior intern approached Dayton Superior about the project. Dayton Superior agreed to provide the students with Cure & Seal 1315 J22WB, a water-based acrylic copolymer that offers an outstanding curing, sealing and dustproofing for freshly finished concrete surfaces.

CUSTOMER

- Owner: Private Owner
- Contractor: Students from the BYU Civil and Environmental Engineering Department
- Instructor: Spencer Guthrie, Associate Professor, Department of Civil and Environmental Engineering, BYU

PROJECT

- Driveway replacement
- BYU Service Learning Project
- Concrete Mixture Design Analysis class
Civil and Environmental Engineering Department in Provo, UT

CHALLENGE

Winds in the Provo area were picking up on the day the students applied the Cure & Seal 1315 J22WB to the homeowner's driveway. Once application was complete, a plastic covering was placed over the driveway to protect the freshly applied product. The windy day turned into a rather



Students from the BYU Civil and Environmental Engineering program participated in a service learning project to replace a concrete driveway.



The students gained valuable hands-on experience with all steps in the process, including applying Cure & Seal 1315 J22WB.

SUCCESS STORY



intense wind storm overnight, which tore part of the cover off of the driveway. However, the next day when Professor Guthrie returned to the couple's home to help replace the cover, he found that thanks to Cure & Seal 1315 J22WB, the driveway still appeared moist.

SOLUTION

Dayton Superior's Cure & Seal 1315 J22WB aided in moisture retention by allowing the concrete to fully hydrate and by helping to avoid the shrinkage cracks that are common with concrete placement in hot, windy weather as was experienced in Provo, the day of the project. The students applied the product with a pump-up sprayer and followed the instructions for use on Dayton Superior's Technical Data Sheet for proper application.

"The students said the project provided excellent experience, and we very much appreciate Dayton Superior's participation in the service aspect by donating the Cure & Seal 1315 J22 WB," said Spencer Guthrie, Associate Professor in the Department of Civil and Environmental Engineering at BYU.

RESULTS

- Cure & Seal 1315 J22WB kept the freshly finished concrete moist, even in hot and windy weather.
- The product dries to a non-yellowed, durable, clear film.
- The product surpasses the ASTM C-309 & ASTM C 1315 specifications.
- The product proved to be an excellent surface sealer and dustproof.

RESOURCES

Learn more about Cure & Seal 1315 J22WB and related products at: www.daytonsuperior.com.



Cure & Seal 1315 J22WB is available in 5 gallon pails and 55 gallon drums.

Additional chemical product information is available online at www.daytonsuperior.com. Contact your Dayton Superior representative at 888-977-9600, or email info@daytonsuperior.com if you would like to discuss how these or other innovative systems can make your construction projects more productive.



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