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Concrete Technology

What does concrete have in common with ice cream? It comes in a lot of flavors! Visit www.Knightscompanies.com to have a look at some of many of the flavors available. We at Knight's offer over 400 different ways and ingredients to put your concrete together. It can be made to set slower or faster. It can look like concrete or have oyster shells decorating the top. It comes in a range of strength from 100 psi to 14,000 psi. Maybe more!

Let me highlight just two of the flavors. Marine concrete is popular in our coastal environment. It is very dense and used to make concrete more durable in salt (sea) locations. The Navy has been in the forefront of this technology using the material on docks. Some commercial use is taking place in the area on private docks. Marine concrete gets it's density from a material called silica fume. The material is much finer than cement. Marine concrete is usually specified to be 6000 psi in strength and sometimes uses another value to quantify its durability called coulombs resistance. A current is passed through a sample of concrete and measured in coulombs. The lower the resulting value# the more resistant to salt the concrete is. A value of 1500 coulombs is very good; The Navy has called for as little as 750 coulombs. Varying specifications can come up with designs with more or less resistance to salt water.

Another flavor that amazes me is called Self Consolidated Concrete. It uses gradation technology along with specialty chemicals to allow the concrete to be "poured into place."   The concrete remains homogeneous even though it is very "wet." In this case we look at spread instead of slump. For testing, a slump cone is inverted, filled, and raised. After raised the amount the concrete flows horizontally is measured. The most common spread is about 25 inches. No consolidation is required and the concrete covers the reinforcing steel and works exceptionally well in corners. It has been used in precast production for some time now and is working its way into ready mix applications.

Vanilla is still available, but if you want something different just ask!