

Georgia- Pacific Plasters

| Plaster Part # & Description | USE Consistency Mix Ratio | Vicat Set Time Minutes | % Set Expansion | Dry Density | Expected Compressive Strength (PSI) |
|---|---|------------------------|-----------------|-------------------|-------------------------------------|
| #K59 Pottery Plaster (USG1) K-59 Designed for all types of potteries and sanitary ware. Casts smooth and free of pinholes. Contains Densite plaster, the composition requires less water to achieve high fluidity. The water content can be as low as 64:100 and the resulting cast is exceptionally strong and long wearing. | 68-70 :100 | 25 - 35 | 0.22 - 0.27 | 69 - 71 lb/sq ft | 2000 - 2600 |
| #GP4 Molding Plaster (Molding USG2) | 70-75:100 | 27 - 37 | 0.15% | 65 -69 lb / sq ft | 1500 -2000 |
| #GP2ST Denscal ST (Hydrostone USG11) Denscal ST is GPG's strongest and hardest Denscal gypsum cement, recommended for applications that require smooth consistent hard surfaces. Excellent for solid patterns, models and molds. | 30:100 | 15 -25 | 0.200 | 110 lb / sq ft | 10,000 - 11,000 |
| #GP5 StatuaryCasting Plaster BR252 (Casting USG3) | 65 - 70 :100 | 25 -30 | 0.18 | 69 - 72 / sq ft | 3000 - 4000 |
| #GP1WH Denscal WH (USG6 Hydrocal White) Ideal choice for all types of art novelties, slush and solid casting, molds for latex novelties. It's high strength makes this neutral, general purpose gypsum cement a versatile performer, particularly when quality castings are needed. Denscal WH offers excellent hardness and low paint absorption. | 34 -35 : 100 | 25 - 30 | 0.3 - 0.35 | 102 - 104 / sq ft | 7000 - 8000 |
| #GP3 Lab Dental (USG4 Lab Dental) Fine grind general purpose plaster should be mixed as thick as possible to achieve maximum strength. | 48 - 50 :100 | 6 -8 | 0.20 - 0.21 | 85 - 87 / sq ft | 3700 - 4000 |
| #K40 ULTRA DENSITE K40 (USG7 Ceramical) Densite K40 is a specifically developed product which has been formulated to produce a purgable plaster die with high strength, open purging, and quick releasing characteristics. Purgable plaster used to press pugs of clay into molded shapes. Only available in 2000 lb super sacks. | 36 - 40 : 100 | 15 - 20 | 0.035 - 0.05 | 96 - 102 / sq ft | 6000 - 8000 |
| | GENERAL PLASTER MIXING INSTRUCTIONS: | | | | |
| | Your mixing container and equipment should be clean and free of all previous plaster mixing. Old plaster will cause your new mix to set irregularly and at faster rate. | | | | |
| | Water needs to be carefully and specifically measured. Water temperature is very important to your set time. Testing ,all water is at 70 degrees (use a thermometer). Hotter water will speed up your set time. Cooler water will slow and retard the set time. | | | | |
| | Plaster mixes into water, shift your plaster into your pre-measured water, allow to slake 30 seconds and mix time will be 30 - 60 seconds. | | | | |
| | Plaster ages, it is hydroscopic. Older plaster may require less water. | | | | |
| | Adjusting and checking your GP plaster to its' USG counterpart. Nothing will be exactly the same as we all know. Correctly adjusting and controlling your water will be the key to achieving the best match for your needs. | | | | |
| | Field Test Procedure: | | | | |
| | You will need : | | | | |
| | Waxed or plastic cup | | | | |
| | Wooden stir stick | | | | |
| | Thermometer | | | | |
| | Timer | | | | |
| | Straighten paper clip | | | | |
| | I mix in 200 gram test amounts with the prescribed water for the given plaster at 70 degrees.Mix in your cup as directed. | | | | |
| | Set your timer. As soon as the slurry appreciably stiffens, begin inserting the extended paperclip. . When considerable pressure from your index finger is required to reach the bottom of the cup your will have your set time. | | | | |
| | I test absorption by allowing the test cup of plaster to set overnight. Weigh your slug of plaster. Cover with room temp water and soak for an hour. Re-weigh your slug of plaster. The % difference in weight will be your absorption. If you are matching this to your USG version, you need to make a slug of each for control purposes. If your set time or absorptions are different, these will be adjustable with more or less water and the temperature of the water. | | | | |