



**Grape and Granary**  
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**G & G Beer Brewing Kit**  
MALT EXTRACT- WITH GRAIN STEEPING

**GG14**  
**G&G ENGLISH SPECIAL BITTER**

**Ingredients**

**Syrup Malt Extract #1**  
**Dry Malt Extract #2**  
**Specialty Grains #3**  
**Bittering Hops #4**  
**Aroma Hops #5**  
**Priming Sugar #6**  
**Irish Moss**  
**Sock for Steeping**  
**Yeast**

**Equipment**

S.Steel or enamel canning pot  
Primary fermenter w/ lid  
Airlock and stopper  
Siphon equipment  
Hydrometer/thermometer  
Sanitizer  
Caps  
Capper

**Recipe Specifics**

Batch size- 5 us gallons  
Total grain- 1.17 lbs  
Anticipated SG 1.044  
Anticipated color SRM- 12  
Anticipated IBU- 36  
Boil time- 45 minutes

**Process Specifics**

Grain steeping temperature- 150-160 deg f.  
Recommended Yeast strain- Wyeast #1028  
Fermentation temperature- 60-75 deg f.  
Primary fermentation time- 3-5 days  
Secondary fermentation time- 5-7 days  
Carbonation- 5 oz dextrose  
Ideal conditioning time- 4-6 weeks

For a list of instruction sheets for grape and granary kits, visit <http://www.grapeandgranary.com/ggrec.htm>

1) Sanitize primary fermenter, lid, airlock (preferably using one-step or iodine sanitizer)

2) Pour approximately 1.25 gallons dechlorinated water into your boiling kettle. Bring water to 150-160 degrees F. Place specialty grains (#3) in steeping sock and place sock in water. Allow grains to steep for 20 minutes at 150-160 deg. F. Stir well repeatedly throughout the 20 minutes for maximum extraction of color, flavor and aroma. After 20 minutes remove the sock. Add an additional 2-3 gallons of brewing water to the kettle and bring to a boil.

3) Turn off heat. Add syrurp malt extract (#1), dry malt extract (#2) and bittering hops (#4) . Stir well so that ingredients do not stick to the bottom of kettle. Hops may be put directly into kettle, straining bag not required.

4) Bring this mixture called 'wort' back up to a boil (watch for possible boil over). Allow to boil at a good rolling boil for 45 minutes. Control heat during boil so boil-over does not occur.

At 15 minutes before the end of the boil, add Irish Moss into the boiling wort.

At 2 minutes before the end of the boil, add aroma hops (#5) into the boiling wort.

5) After 45 minute boil, turn off heat. If possible, place boiling pot into a sink of cold water. Circulate cold water around the outside of the pot for 15-20

minutes. Cool the wort to 110-120 degrees Fahrenheit.

Pour or siphon wort from boiling kettle to primary fermenter (attempt to leave most of the hop residue and any proteins behind). Add enough cold water (refrigerated with no chlorine) to the wort and bring the volume up to 5 gallons.

6) Check temperature of wort and obtain 60-75 deg F.. If necessary, place primary fermenter into a sink of cold water to achieve this temperature range.

7) Add yeast- if using liquid yeast make sure it has previously been popped and incubated or have yeast starter ready. If dry yeast is being used, rehydrate according to manufacturers instructions or sprinkle on top of wort. Check starting specific gravity with hydrometer and record. Fill airlock half full with water and attach to primary fermenter lid. Fermentation will commence within 24 to 72 hours.

8) When airlock stops bubbling (only bubbles 1 time per minute) check specific gravity. If doing a one stage fermentation go to step 10.

9) **RECOMMENDED STEP-** Siphon beer off yeast sediment into a 5 gallon glass jug. Do not splash. Allow beer to sit in carboy until clear usually 5-7 days. Add a fining agent if needed ( not included in this kit ).

10) Sanitize recappable beer bottles. Siphon beer from primary or secondary fermenter into priming container. Dissolve priming sugar (#6 ) in 1 cup boiling water. Add this sugar mixture to the beer in the priming/bottling container. Stir well but do not splash.

11) Fill bottles to within one inch of the top. Cap bottles and allow to sit at 60-75 degrees F. for two weeks. The bottles may then be refrigerated. The beer may be consumed after two weeks but will continue to improve up to 2 months in the bottle. The beer will store well for a year or longer. Chill the beer to 45-55 deg. F. before drinking and decant into a clean beer glass that has the capacity to hold all of the beer in the bottle- Enjoy!

IF YOU HAVE PROBLEMS OR QUESTIONS, PLEASE CALL 330-633-7223

#### **Special Bitter**

A flavorful, yet refreshing, session beer. Some examples can be more malt balanced, but this should not override the overall bitter impression. Drinkability is a critical component of the style; emphasis is still on the bittering hop addition as opposed to the aggressive middle and late hopping seen in American ales.

**History:** Originally a draught ale served very fresh under no pressure (gravity or hand pump only) at cellar temperatures (i.e. "real ale"). Bitter was created as a draught alternative (i.e. running beer) to country-brewed pale ale around the start of the 20th century and became widespread once brewers understood how to "Burtonize" their water to successfully brew pale beers and to use crystal malts to add a fullness and roundness of palate.