

# AMERICAN ALE

## KIT361

### SPECIALTY MALTS & ADDITIONS

Also known as *Character Malts*, this grain gives your beer the majority of its color and body, as well as its malt flavor and aroma.

**4 oz Crystal 15L**

### FERMENTABLE MALT EXTRACTS

Malt Extract provides the bulk of the fermentable sugars used by the yeast to create your beer.

**1.25 lbs Briess Golden Light**

### HOPS

Hops provide beer's bitterness, as well as spicy, floral, piney and/or citrusy flavors and aromas, depending on the varieties used.

**0.25 oz Magnum**

Bittering Hops - Boil for 60 Minutes

**0.25 oz Cascade**

Flavor Hops - Boil for final 5 Minutes

**0.25 oz Cascade**

Aroma Hops - Boil for final 1 Minute

### YEAST

Yeast are the microorganisms responsible for converting the malts' sugars into alcohol. Different strains of yeast lead to different flavors in the beer.

**Safale US-05 Dry Brewer's Yeast**

*Brewmaster*  
SINCE 1971

Thank you for your purchase of this premium quality Beer Ingredient Kit from Brewmaster!

### QUICK STATS ABOUT YOUR BEER!

#### ESTIMATED COLOR

9 SRM

#### ESTIMATED BITTERNESS

55 IBU's

#### ESTIMATED ALCOHOL

4.5% ABV

#### SUGGESTED FERMENT TEMP.

68 °F (20 °C)

### BREW DAY QUESTIONS?

Our friendly staff are ready to help!

**GIVE US A CALL**

800-288-8922

**OR EMAIL US 24/7**

[info@brewmasterwholesale.com](mailto:info@brewmasterwholesale.com)

### SANITATION IS THE BACKBONE OF GREAT BEER!

Great beer starts with great sanitation practices. Consistent, good flavor comes when the yeast that we select to perform the fermentation are the only organisms present. Wild yeasts & bacteria can also perform fermentations, usually with undesirable results. So, from the moment the boiling portion of the brewing day is over, until the beer hits your pint glass, everything that touches it needs to be sanitized!

# BREW DAY

BREWING is the process of extracting sugar, and color from grains (also commonly called malt), then boiling the resulting liquid with hops to extract their flavor and aroma. At the end of Brew Day you will have made wort (pronounced “wurt”), which is the brewer’s name for pre-fermented beer.

## MAKING & USING SANITIZER

1. Measure 1 ¼ Tsp (or 6 mL) of StarSan into your 1 gal fermenter and fill with water. The sanitizer will foam up some, which is completely normal.

2. Let sanitizer work for 2 minutes, then pour it into your plastic tub. Place the airlock, stopper, auto-siphon, hose, scissors and yeast from your Recipe Kit in the sanitizer until it’s time to use them.

3. Place the Fermenter upside down on a clean surface or rack until later. There’s no need to rinse the sanitizer out of the fermenter or off of any of the other equipment before use. (It’s 100% safe, we promise!)

## GETTING READY

Review the recipe info on page 1, noting the order and times of the hop additions. Read through these directions all the way up to “Fermentation.”

## GATHER EQUIPMENT

Next, gather the following items together from your brewing kit and kitchen:

- » Ingredients, Muslin Bag & Yeast from your Recipe Kit (set the Carbonation Drops and Bottle Caps aside for now).
- » Kettle - at least 2 gal (8 L)
- » 1 Gal. (3.8 L) Fermentation jug
- » Fermenter Lid with Grommet
- » Airlock
- » Large Mixing Spoon
- » Auto siphon & hose
- » Sanitizer
- » Scissors
- » Measuring spoons
- » 1.5 - 2 gal (6-8 L) Plastic tub for sanitizer (e.g: a dishwashing basin)

## NOW LETS BREW!

### 1. COLLECT WATER

Fill your kettle with 1.5 gal (6 L) of clean, good-tasting water. If you buy bottled water to drink, that’s what you should use for brewing. Turn on the stove to MEDIUM.

### 2. STEEP GRAINS (if applicable)

Over your sink, pour your steeping grains into the muslin bag and tie a knot in the open end. Steep the grains in the water for 15 minutes as it heats. Depending on your recipe you may not have grains to steep.

*If you have a thermometer to track the temperature of the water, remove the grains*

*when the water reaches 170°F or after 15 minutes, **whichever occurs first**. Over 170°F the grain husks will leach harsh tannins into your beer.*

### 3. BRING TO A BOIL

Remove the grain bag. You can let it drip-drain but do not squeeze the bag. Turn the stove to HIGH and wait for the liquid to boil.

### 4. ADD MALT POWDER

Once it reaches a boil, remove the kettle from heat and slowly stir in your malt extract. Return to the burner and set to MEDIUM-HIGH heat, bringing the kettle back to a boil.

*The extract is very attracted to water and will clump up from the steam rising off of your kettle if you try to pour it directly out of the bag. Putting it in a bowl before pouring it into your kettle will help this go more smoothly.*

Once added, stir well and **ensure the extract dissolves completely**. If your recipe includes Maltodextrin, add it at this time.

## 5. THE HOT BREAK

As the liquid nears boiling again, a lot of foam will begin to form; slowly at first and then **VERY** rapidly. This is called the **hot break**. You will need to reduce the heat or remove the kettle from the burner, possibly more than once, to keep from boiling over. Once the foam subsides or stops growing, proceed to step 6.

## 6. ADD HOPS & BOIL WORT

Referring to the recipe on page 1, add the Bittering Hops directly to the boiling kettle and note the time. This will be the start time for your boil, which will last as long as the Bittering Hops need to be boiled for (noted on page 1). Add the 2nd and 3rd hops (if appropriate) at the times specified. It can be helpful to use the timer on your smartphone to keep track of when to make hop additions and when your boil is complete.

*Use just enough to keep a gently rolling boil or you may lose an unnecessary amount of water during the process.*

## 7. CHILL YOUR WORT

Place your kettle in the sink surrounded by ice water. Let the kettle cool until the outside is no longer hot to the touch.

*It can be helpful to drain the sink and replace with fresh ice water once or twice. The greater the difference between the water temp and the kettle temp, the more effective the cooling is. Adding salt to the water can help it get even colder, just make sure to wash off your kettle and sink thoroughly afterwards if they're stainless steel.*

## 8. MOVE WORT TO FERMENTER

Use the Auto-Siphon to transfer the wort to the fermenter. To use the Auto-Siphon, place the kettle on the kitchen counter and the fermenter on a chair in front of it. Attach one end of the tubing to the auto-siphon and make sure the other end of the tubing is in the fermenting jar before you operate the Auto-Siphon. Once the wort is flowing and the tubing is full, gravity will keep the siphon flowing. Transfer all the liquid to the fermenter while leaving behind as much sediment as possible.

## 9. ADD YEAST

Use the sanitized scissors to cut open the yeast pack and pour ½ of the package into the

wort. Let the yeast float on top of the wort instead of mixing it in; Yeast need oxygen to reproduce before they start fermentation, most of which has been driven out of the wort during the boil. In brewing, adding the yeast is called **pitching**.

## 10. ADD THE AIRLOCK

Attach the screw top to the fermenter. Fill the wairlock to the line with sanitizer and secure it in the hole in the fermenter lid.

### WHERE TO PUT THE FERMENTER

Place the fermenter somewhere out of direct sunlight, with a steady temperature as close to 68°F (20°C) as you can manage. Consider placing an old towel underneath the fermenter to catch any mess. Keeping the temp from fluctuating widely is the best strategy. Typically your beer will taste better if it spends all of fermentation at 74°F than if it swings from 65°F-80°F every day.

# FERMENTATION

**Fermentation** is the process by which the **yeast** consume the sugars present in the **wort** and convert them to alcohol and carbon dioxide (CO<sub>2</sub>). The presence of the alcohol is what turns your **wort** into **beer** and the CO<sub>2</sub> being released will make your airlock dance the whole time!

## 1. FERMENTATION STARTS

You should see the first signs of fermentation within a day or two. Yeast are living organisms, so the amount of time between pitching and the start of fermentation varies. Your beer should start quickly, but may take up to 48 hr. If you aren't seeing any bubbling in the airlock after 48 hrs, add the rest of the yeast packet.

## 2. FERMENTATION PROGRESSES

As the yeast begin to work you'll see bubbles form on the surface of the wort, and soon afterwards you'll start to see the airlock bouncing up and down as CO<sub>2</sub> is released. Over the next 2-3 days a lot of thick foam, called **krausen** (*croy-zen*) will form before it falls back into the beer.

## 3. FERMENTATION ENDS

About 7-10 days after the point of **high krausen** your beer will be done fermenting. Because yeast are living organisms, the length of fermentation varies from batch to batch. Anywhere in the 7-14 day range is normal. You'll know you're ready to bottle when there's been no activity in the airlock for 3 days.

# BOTTLING DAY

Now that you've got fermented beer, it's time to bottle and carbonate it. Carbonation is provided by adding a small amount of fresh sugar to the bottle, known as **priming** the beer, and then sealing the bottle. The small amount of residual yeast in the bottle will ferment this new sugar and create more CO<sub>2</sub>. This time, with no airlock to let it escape, the CO<sub>2</sub> will be trapped in your beer, creating carbonation! This process is called **bottle conditioning**.

## GATHER UP THE FOLLOWING ITEMS:

- » Auto Siphon & Tubing
- » Bottle Filler Attachment
- » Capper
- » Bottle Caps
- » Carbonation Drops
- » StarSan, Measuring Spoons & Plastic Tub
- » Dish Rack
- » 10-12 clean 12 oz. Pry-Off Beer Bottles (NOT Twist-Off Bottles)

## 1. MOVE THE FERMENTER

You need to place it on the edge of a counter or table, so that you can fill the bottles via siphon. Move the fermenter as gently and early as possible, to minimize the amount of sediment that is stirred up and so any that is has plenty of time to settle back out. Ideally do this the night before bottling.

## 2. SANITIZE

Mix up a gallon of sanitizer in the tub (1 ¼ tsp per gal). Fill and submerge the bottles for 2 minutes and then stand them upside down on the dish rack. Place the Auto Siphon, tubing, bottle filler and caps in the sanitizer. Leave the caps soaking until you use them.

*You can sanitize all of the bottles ahead of time and turn them upside down; they'll stay sanitized as long as they're inverted, even if the sanitizer dries. One handy tip is to run the dishwasher the night before bottling, then use the now-clean top rack to store your sanitized bottles upside down until you need them.*

## 3. ASSEMBLE THE SIPHON

Attach the siphon tubing to the Auto Siphon and insert the bottle filling wand in the other end. Put 1 carbonation drop in the first bottle, and insert the bottling wand. Depress the tip to allow beer to flow as you start the siphon.

## 4. ADD CARBONATION DROPS AND FILL BOTTLES

Lifting the tip of the bottling wand off the bottom of the bottle will stop the beer flowing. Fill to about 1/4" below the mouth of the bottle. While the bottle is filling, prepare the next one by adding the Carbonation Drop to it and having it ready. Once the bottle is full, set it aside and place a sanitized bottle cap over the mouth.

*Because the neck of the bottle is narrow, it fills up much faster than the rest of the bottle; so watch out for spills. It's helpful to stop filling once the beer enters the bottle neck, and top up with quick "taps" of the filling wand until you reach the proper fill level.*

## 5. CAP BOTTLES

Place a bottle cap on the bottle and center the capper's bell over it. Press down firmly on the capper's handles to crimp the cap onto the bottle.

# CONDITIONING

**Bottle Conditioning** is the original, natural process of adding carbonation to beer. Once the bottles are filled, set them aside for 2 weeks to allow the natural carbonation to occur. While it's tough to be patient, This additional time in the bottle is also important for full maturation of the beer's flavors and aroma. Many beers reach their peak flavor 3-5 weeks after bottling.

At the end of your 2 week wait, move a couple of bottles into the fridge overnight. Go grab your favorite pint glass. Crack the top off and listen for the satisfying "psst!". In one gentle motion, pour your beer into the glass leaving behind the last 1/4" with the sediment in the bottle. Sniff, sip, and savor. Congratulations, **Brewmaster**—Enjoy

## MY TASTING NOTES

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