

## #20 English Special Bitter

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **43**
- SRM **8.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **20.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **22.5 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.5 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **75.2C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **22.5 liter(s)** of wort

### Fermentables

| Type  | Name                         | Amount        | Yield | EBC |
|-------|------------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt         | 2 kg (44.4%)  | 80 %  | 5   |
| Grain | Monachijski Ciemny Steinbach | 2 kg (44.4%)  | 100 % | 30  |
| Grain | Briess - Wheat Malt, Red     | 0.3 kg (6.7%) | 81 %  | 5   |
| Grain | Caramel/Crystal Malt - 10L   | 0.2 kg (4.4%) | 75 %  | 20  |

### Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Fuggles    | 40 g   | 60 min | 4.5 %      |
| Boil    | Willamette | 20 g   | 60 min | 5 %        |
| Boil    | Bramling   | 40 g   | 15 min | 6 %        |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Fermentis  |