

#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