

Bratowe

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **13**
- SRM **5.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **76C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (42.9%)	85 %	7
Grain	Weyermann - Pilsner Malt	3 kg (42.9%)	81 %	5
Grain	Weyermann - Pale Wheat Malt	1 kg (14.3%)	85 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	10 g	60 min	13.1 %
Aroma (end of boil)	Equinox	40 g	1 min	13.1 %
Dry Hop	Amarillo	50 g	7 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis