

USA BITTER

- Gravity **11.2 BLG**
- ABV ---
- IBU **32**
- SRM **9**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (85.1%)	79 %	6
Grain	Strzegom Karmel 150	0.2 kg (4.3%)	75 %	150
Grain	Strzegom Monachijski typ II	0.5 kg (10.6%)	79 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	13 %
Boil	Cascade	15 g	20 min	6 %
Boil	Chinook	10 g	5 min	13 %
Boil	Cascade	10 g	5 min	6 %
Dry Hop	Cascade	25 g	5 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	250 ml	Safale