

Prosty ale

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.5 kg (92.8%)	81 %	4
Grain	Pszeniczny	0.2 kg (4.1%)	85 %	4
Grain	Strzegom Karmel 30	0.15 kg (3.1%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	120 min	13 %
Boil	Chinook pl	10 g	30 min	10 %
Aroma (end of boil)	Chinook pl	15 g	5 min	10 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Water Agent	Kwas mlekowy	3 g	Mash	50 min