

jasne

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **25**
- SRM **8**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **65 C**, Time **90 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **90 min** at **65C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	1.2 kg (30.1%)	80 %	8
Grain	Pilzneński	2.56 kg (64.2%)	81 %	4
Grain	Caraaroma	0.08 kg (2%)	78 %	400
Grain	Simpsons - Crystal Rye	0.15 kg (3.8%)	73 %	177

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	puławski	20 g	60 min	6 %
Boil	puławski	15 g	45 min	6 %
Aroma (end of boil)	Saaz (Czech Republic)	10 g	0 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale