

czapa

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **53**
- SRM **23.6**
- Style **American 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Caramel/Crystal Malt - 120L	0.5 kg (9.6%)	72 %	236
Grain	Carafa III	0.2 kg (3.8%)	70 %	1300
Grain	Strzegom Pale Ale	4.5 kg (86.5%)	79 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	25 g	60 min	15.5 %
Boil	Kazbek	15 g	30 min	4.6 %
Boil	Kazbek	15 g	15 min	4.6 %
Boil	Saaz (Czech Republic)	10 g	15 min	5.6 %
Dry Hop	Kazbek	20 g	7 day(s)	4.6 %
Dry Hop	Saaz (Czech Republic)	20 g	7 day(s)	5.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
us5	Ale	Dry	11.5 g	---