

apa I

- Gravity **12.1 BLG**
- ABV ---
- IBU **30**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **21.6 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (94.3%)	80 %	4
Grain	Weyermann - Carapils	0.2 kg (3.8%)	78 %	4
Grain	Carahell	0.1 kg (1.9%)	77 %	26

Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	citra	30 g	0 min	10 %
Aroma (end of boil)	citra	20 g	10 min	10 %
Boil	amarillo	30 g	60 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Dry	100 g	---