APA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **52**
- SRM **4.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.5 kg *(66.7%)*	81 %	4
Grain	Pszeniczny	1 kg *(19%)*	85 %	4
Grain	Wheat, Flaked	0.5 kg *(9.5%)*	77 %	4
Grain	Abbey Castle	0.25 kg *(4.8%)*	80 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	30 g	30 min	14.4 %
Whirlpool	Simcoe	50 g	20 min	11.4 %
Dry Hop	Simcoe	50 g	3 day(s)	11.4 %
Dry Hop	Citra	100 g	3 day(s)	12 %
Dry Hop	Mosaic	100 g	3 day(s)	10 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Water Agent	Gips	5 g	Mash	60 min
Water Agent	Lactic Acid	5 g	Mash	60 min
Fining	Whirlfloc	2.5 g	Boil	10 min