

APA

- Gravity **12.6 BLG**
- ABV ---
- IBU **45**
- SRM **6.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

Steps

- Temp **66 C**, Time **80 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **9.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **80 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	2 kg (64.5%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (16.1%)	79 %	16
Grain	Strzegom Karmel 150	0.3 kg (9.7%)	75 %	15
Grain	Pszeniczny	0.3 kg (9.7%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Boil	Citra	10 g	15 min	12 %
Boil	Citra	10 g	5 min	12 %
Dry Hop	Citra	15 g	5 day(s)	12 %
Dry Hop	Citra	15 g	1 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	5 g	Fermentis

Extras

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

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	2 g	Boil	15 min