

Apache

- Gravity **19.1 BLG**
- ABV ---
- IBU **59**
- SRM **7.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **7 %**
- Size with trub loss **17.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **19.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **4.5 liter(s)** of **76C** water or to achieve **19.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (83.3%)	79 %	6
Grain	Strzegom Pszeniczny	1 kg (16.7%)	81 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	12.8 %
Aroma (end of boil)	Citra	10 g	10 min	12.4 %
Aroma (end of boil)	Equinox	10 g	10 min	13.4 %
Aroma (end of boil)	Mosaic	10 g	10 min	12.4 %
Dry Hop	Citra	20 g	7 day(s)	12.4 %
Dry Hop	Equinox	20 g	7 day(s)	13.4 %
Dry Hop	Mosaic	20 g	7 day(s)	12.4 %

Yeasts

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