

apa1

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **23**
- SRM **8.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (71.4%)	80 %	4
Grain	Karmelowy Jasny 30EBC	1 kg (14.3%)	75 %	30
Grain	Viking Melanoidynowy	1 kg (14.3%)	75 %	60

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	10 %
Aroma (end of boil)	Cascade	100 g	1 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
US05	Ale	Slant	100 ml	---