

Apa#1

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **32**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **68 C**, Time **10 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **10 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (47.6%)	82 %	4
Grain	Viking Pale Ale malt	1 kg (23.8%)	80 %	5
Grain	Strzegom Monachijski typ II	1 kg (23.8%)	79 %	22
Grain	Pszeniczny	0.2 kg (4.8%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	60 min	7.6 %
Boil	Chinook	10 g	30 min	7.6 %
Boil	Cascade	15 g	15 min	7.1 %
Aroma (end of boil)	Cascade	10 g	5 min	7.1 %
Aroma (end of boil)	Cascade	10 g	0 min	6 %
Aroma (end of boil)	Citra	10 g	0 min	12 %
Dry Hop	Cascade	20 g	6 day(s)	7.1 %
Dry Hop	Citra	20 g	6 day(s)	12 %

Dry Hop	Amarillo	15 g	6 day(s)	9.5 %
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Yeasts

Name	Type	Form	Amount	Laboratory
s - 05	Ale	Dry	11.5 g	fermentis