

apa 1

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **35**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pszeniczny	0.5 kg (14.3%)	81 %	6
Grain	pilzenski	1.2 kg (34.3%)	80 %	4
Grain	Viking Pale Ale malt	1.8 kg (51.4%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	5 g	50 min	13.5 %
Boil	Magnum	10 g	15 min	13.5 %
Aroma (end of boil)	Magnum	15 g	10 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	8 g	---