

APA

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **46**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33.9 liter(s)**
- Boil time **40 min**
- Evaporation rate **10 %/h**
- Boil size **39.4 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **28.5 liter(s)**
- Total mash volume **38 liter(s)**

Steps

- Temp **52 C**, Time **5 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **28.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **40 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **39.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (42.1%)	80 %	4
Grain	Simpsons - Golden Promise	2 kg (21.1%)	81 %	4
Grain	Pszeniczny	1 kg (10.5%)	85 %	4
Grain	Płatki pszeniczne	1 kg (10.5%)	60 %	3
Grain	Płatki owsiane	1 kg (10.5%)	60 %	3
Grain	Biscuit Malt	0.5 kg (5.3%)	79 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	35 g	60 min	11 %
Aroma (end of boil)	Nelson Sauvín	50 g	5 min	11 %
Aroma (end of boil)	Galaxy	25 g	5 min	15 %
Whirlpool	Nelson Sauvín	50 g	10 min	11 %
Whirlpool	Galaxy	25 g	10 min	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	22 g	---