Wakacyjna APA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **50**
- SRM **3.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **13.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg *(90.9%)*	81 %	4
Grain	Pszeniczny	0.4 kg *(9.1%)*	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Książęcy	20 g	50 min	7.2 %
Boil	rody hodowlane 2/20	30 g	20 min	9.3 %
Boil	Książęcy	35 g	10 min	7.2 %
Boil	rody hodowlane 2/20	40 g	5 min	9.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP518 - Opshaug Kveik Ale	Ale	Slant	80 ml	White Labs