

## APA z pszenicą

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **32**
- SRM **6.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

### Steps

- Temp **65 C**, Time **50 min**
- Temp **70 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **17.7 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **15 min** at **70C**
- Keep mash **1 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (67.8%)	80 %	5
Grain	Pszeniczny	0.5 kg (8.5%)	85 %	4
Grain	Carahell	1 kg (16.9%)	77 %	26
Grain	Płatki owsiane	0.4 kg (6.8%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Palisade	20 g	60 min	7.3 %
Boil	Palisade	10 g	30 min	7.3 %
Aroma (end of boil)	Citra	28.3 g	5 min	3 %
Boil	Michigan Cooper	20 g	15 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Dry	11.5 g	---

### Extras

Type	Name	Amount	Use for	Time
Spice	curacao	15 g	Boil	10 min