

## APA v14 #118

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **38**
- SRM **4.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **8 %**
- Size with trub loss **18.7 liter(s)**
- Boil time **80 min**
- Evaporation rate **22 %/h**
- Boil size **24.3 liter(s)**

### Mash information

- Mash efficiency **85.1 %**
- Liquor-to-grist ratio **3.94 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep©Ale	3.1 kg (81.6%)	82.2 %	4.8
Grain	płatki owsiane	0.4 kg (10.5%)	83 %	3
Grain	Viking - pszeniczny	0.1 kg (2.6%)	83 %	5
Grain	Weyermann - abbey	0.2 kg (5.3%)	78 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	13 g	60 min	11.5 %
Aroma (end of boil)	Zula	40 g	5 min	9.7 %
Aroma (end of boil)	Oktawia	40 g	5 min	7.8 %
Aroma (end of boil)	Izabela	40 g	1 min	5.1 %
Dry Hop	Oktawia	30 g	2 day(s)	7.8 %
Dry Hop	Zula	30 g	2 day(s)	9.7 %
Dry Hop	Izabela	30 g	2 day(s)	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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WLP090 - San Diego Super Yeast	Ale	Slant	160 ml	White Labs
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	2.5 g	Mash	---
Water Agent	kwask mlekowy 80% [ml]	4.57 g	Mash	---
Water Agent	chlerek wapnia [ml]	0 g	Mash	---
Water Agent	epsom	0.5 g	Mash	---
Water Agent	mech irlandzki	3 g	Boil	10 min
Water Agent	kwask askorbinowy	3.5 g	Bottling	---