

## APA v12 #110

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **36**
- SRM **5.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15.7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **24 %/h**
- Boil size **22.4 liter(s)**

### Mash information

- Mash efficiency **72.7 %**
- Liquor-to-grist ratio **3.85 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.9 liter(s)**

### Steps

- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **7 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **22.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep©Ale	3.4 kg (87.2%)	82.2 %	4.8
Grain	pszeniczny - bruntal	0.3 kg (7.7%)	83 %	5
Grain	abbey - chateau	0.2 kg (5.1%)	78 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Falconers Flight	14 g	60 min	10.3 %
Aroma (end of boil)	Falconers Flight	50 g	5 min	10.3 %
Dry Hop	Falconers Flight	66 g	2 day(s)	10.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Liquid	40 ml	White Labs

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	2.5 g	Mash	---

Water Agent	kwask mlekowy 80% [ml]	4.4 g	Mash	---
Water Agent	chlorek 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 g	Bottling	---