

## APA v27 #145

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **33**
- SRM **4.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **18.1 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **95 min**
- Evaporation rate **19.2 %/h**
- Boil size **25.4 liter(s)**

### Mash information

- Mash efficiency **84.8 %**
- Liquor-to-grist ratio **3.85 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.9 liter(s)**

### Steps

- Temp **65 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 **70.9C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński - viking	2 kg (51.3%)	80 %	3.6
Grain	pale ale - viking	1 kg (25.6%)	80 %	5.5
Grain	płatki owsiane	0.4 kg (10.3%)	83 %	3
Grain	pszeniczny - bestmalz	0.3 kg (7.7%)	82 %	5
Grain	biscuit - chateau	0.2 kg (5.1%)	77 %	50

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	10 g	60 min	14.7 %
Aroma (end of boil)	CTZ	20 g	10 min	11.7 %
Aroma (end of boil)	Strata	20 g	1 min	15.1 %
Aroma (end of boil)	Citra	30 g	1 min	13.8 %
Dry Hop	Citra	30 g	2 day(s)	13.8 %
Dry Hop	Strata	30 g	2 day(s)	15.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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WLP090 - San Diego Super Yeast	Ale	Slant	175 ml	White Labs
6 tygodniowa gęstwa				

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	3 g	Mash	---
Water Agent	kwas mlekowy 80% [ml]	4.6 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	---