

## PACIFIC APA #39

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- Gravity **11.4 BLG**
- ABV ---
- IBU **45**
- SRM **4.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

### Mash information

- Mash efficiency **78.6 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - pale ale	4.5 kg (90%)	79 %	6.5
Grain	Weyermann - Carapils	0.25 kg (5%)	75 %	4
Grain	Bestmalz - pszeniczny	0.1 kg (2%)	82 %	4
Grain	Viking - rye malt	0.1 kg (2%)	81 %	8
Grain	Fawcett - Crystal	0.05 kg (1%)	73.5 %	160

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	6 g	60 min	15.5 %
Boil	Topaz	8 g	20 min	15.5 %
Boil	Mosaic	8 g	20 min	12 %
Boil	Galaxy	8 g	20 min	14.5 %
Aroma (end of boil)	Cascade	20 g	7 min	7.1 %
Aroma (end of boil)	Mosaic	15 g	7 min	12 %
Aroma (end of boil)	Galaxy	15 g	7 min	14.5 %

Dry Hop	Mosaic	40 g	4 day(s)	12 %
Dry Hop	Galaxy	20 g	4 day(s)	14.5 %
Dry Hop	Cascade	20 g	4 day(s)	7.1 %
Dry Hop	Citra	30 g	3 day(s)	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	120 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Water Agent	kwas mlekowy 80% [ml]	4.4 g	Mash	---
Water Agent	gips piwowarski	4 g	Mash	---
Water Agent	chlorek wapnia [ml]	3.43 g	Mash	---
Fining	mech irlandzki	3 g	Boil	7 min

## Notes

- chmiele na 20" i 7" dodane do whirlpoola (98-74C), realnie IBU ok 45  
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