

PACIFIC APA 2 #46

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **44**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

Mash information

- Mash efficiency **84.8 %**
- 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 **11.8 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking - Pale Ale	3.9 kg (78%)	79 %	6
Grain	Bestmalz - pszeniczny	0.4 kg (8%)	82 %	4
Grain	Viking - rye malt	0.2 kg (4%)	81 %	8
Grain	Bestmalz - monachijski	0.2 kg (4%)	80.5 %	16
Grain	Chateau - Abbey	0.3 kg (6%)	78 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	9 g	60 min	15.5 %
Boil	Topaz	15 g	15 min	15.5 %
Boil	Galaxy	15 g	10 min	14.5 %
Aroma (end of boil)	Cascade AUS	20 g	5 min	7.3 %
Aroma (end of boil)	Galaxy	20 g	5 min	14.5 %
Aroma (end of boil)	Citra	25 g	1 min	13.5 %
Dry Hop	Galaxy	30 g	3 day(s)	14.5 %
Dry Hop	Cascade AUS	35 g	3 day(s)	7.3 %

Dry Hop	Citra	55 g	3 day(s)	13.5 %
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Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	130 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	kwask mlekowy 80% [ml]	4.95 g	Mash	---
Water Agent	gips piwowarski	4 g	Mash	---
Water Agent	chlorek wapnia [ml]	1.72 g	Mash	---
Fining	mech irlandzki	3 g	Boil	5 min
Water Agent	sól epsom	2 g	Mash	---