APA POD GRAINFATHER

- Gravity 12.9 BLG
- ABV ---
- IBU **44**
- SRM 4.1
- Style American Pale Ale

Batch size

- Expected quantity of finished beer 21 liter(s)
- Trub loss 5 %
- Size with trub loss 23.1 liter(s)
- · Boil time 60 min
- Evaporation rate 14 %/h
- Boil size 28 liter(s)

Mash information

- Mash efficiency 75 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 16.5 liter(s)
- Total mash volume 22 liter(s)

Steps

- Temp **63 C**, Time **40 min** Temp **72 C**, Time **40 min**
- Temp 76 C, Time 10 min

Mash step by step

- Heat up 16.5 liter(s) of strike water to 70.2C
- · Add grains
- Keep mash 40 min at 63C
- Keep mash 40 min at 72C
- Keep mash 10 min at 76C
- Sparge using 17 liter(s) of 76C water or to achieve 28 liter(s) of wort

Fermentables

Туре	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg <i>(90.9%)</i>	80 %	5
Grain	Płatki owsiane	0.5 kg (9.1%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	6 g	60 min	13 %
Boil	Motueka	50 g	15 min	8 %
Whirlpool	Motueka	50 g	30 min	8 %
Dry Hop	Enigma (AUS)	50 g	5 day(s)	17.2 %

Yeasts

Name	Туре	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	11 g	Mangrove Jack's

Extras

Туре	Name	Amount	Use for	Time
Fining	mech	5 g	Boil	15 min

14/- L A L	alalamatiamaia	25	Maala	CO!
Water Agent	chlorek wapnia	1 25 a	l Mash	l 60 min
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