

## APA(podstawa pod mango i centennial)

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **29**
- SRM **5.7**

### Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **47.6 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **34.1 liter(s)**
- Total mash volume **43.9 liter(s)**

### Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **34.1 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **35 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **23.3 liter(s)** of **76C** water or to achieve **47.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	9.5 kg (97.4%)	80 %	5
Grain	Strzegom Karmel 150	0.25 kg (2.6%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	45 min	12.8 %
Aroma (end of boil)	Cascade	50 g	10 min	6.9 %
Aroma (end of boil)	Cascade	50 g	5 min	6.9 %
Aroma (end of boil)	Chinook	70 g	0 min	12.8 %
Dry Hop	Mosaic	100 g	3 day(s)	10 %
Dry Hop	Centennial	100 g	3 day(s)	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US05	Ale	Slant	250 ml	---

### Extras

Type	Name	Amount	Use for	Time
Spice	skórka słodkiej pomarańczy	40 g	Boil	10 min

## Notes

- do połowy na zimno mossaic i 1 kg pulpy mango

do drugiej połowy centenial

*Mar 29, 2020, 9:13 PM*