

## Taj APA

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **45**
- SRM **4.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 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 **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (45.5%)	80 %	5
Grain	Pilznieński	1.5 kg (27.3%)	81 %	4
Grain	Pszeniczny	0.5 kg (9.1%)	85 %	4
Grain	Monachijski	0.5 kg (9.1%)	80 %	16
Grain	Płatki pszeniczne	0.5 kg (9.1%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	13 %
Boil	Amarillo	10 g	10 min	9.5 %
Dry Hop	Centennial	50 g	4 day(s)	10.5 %
Dry Hop	Amarillo	40 g	2 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M12 Voss Kveik	Ale	Dry	11 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1 g	Boil	10 min
Spice	Skórki słodkiej pomarańczy	25 g	Boil	10 min
Spice	Kardamon	10 g	Boil	10 min
Spice	Kaffir	10 g	Boil	10 min
Spice	Zest 4 limonek	20 g	Secondary	2 day(s)
Spice	Kaffir	5 g	Bottling	---

## Notes

- Herbatka z użyciem 5 g kaffiru dodana do piwa przed zabutelkowaniem razem z cukrem do refermentacji  
*Nov 8, 2021, 11:16 PM*