M44 Simcoe/Amarillo APA

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **42**
- SRM **4**
- 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 **30 min**
- Evaporation rate **12 %/h**
- Boil size **26.3 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **5.7 liter(s) / kg**
- Mash size **28.5 liter(s)**
- Total mash volume **33.5 liter(s)**

Steps

- Temp **68 C**, Time **80 min**
- Temp **78 C**, Time **20 min**

Mash step by step

- Heat up **28.5 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **20 min** at **78C**
- Sparge using **2.8 liter(s)** of **76C** water or to achieve **26.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilzneński 2-rzędowy	3 kg *(60%)*	81 %	4
Grain	Pszeniczny	1 kg *(20%)*	85 %	4
Grain	Strzegom Monachijski typ I	0.5 kg *(10%)*	79 %	16
Grain	Płatki owsiane	0.5 kg *(10%)*	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	30 min	10.6 %
Boil	Simcoe	10 g	15 min	11.5 %
Boil	Amarillo	10 g	15 min	8 %
Boil	Simcoe	15 g	5 min	11.5 %
Boil	Amarillo	15 g	5 min	8 %
Dry Hop	Simcoe	70 g	4 day(s)	11.5 %
Dry Hop	Amarillo	70 g	4 day(s)	8 %

Yeasts

Name	Type	Form	Amount	Laboratory

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Mangrove Jack's M44 US West Coast	Ale	Dry	11 g	Mangrove Jack's