Tropical IPA #2

- Gravity **16.4 BLG**
- ABV **---**
- IBU **81**
- SRM **8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale - Maris Otter	5.5 kg *(84%)*	80 %	7
Grain	Karmelowy Jasny - Strzegom	0.3 kg *(4.6%)*	75 %	30
Grain	Pszeniczny	0.5 kg *(7.6%)*	85 %	4
Grain	Zakwaszający	0.25 kg *(3.8%)*	1 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	28 g	60 min	15.5 %
Boil	Centennial	25 g	20 min	10.5 %
Boil	Citra	20 g	15 min	12 %
Boil	Amarillo	30 g	10 min	9.5 %
Dry Hop	Centennial	25 g	3 day(s)	10.5 %
Dry Hop	Citra	30 g	3 day(s)	12 %
Dry Hop	Amarillo	70 g	3 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory

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

Wyeast - American Ale II	Ale	Liquid	1000 ml	Wyeast Labs

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	5 g	Boil	60 min

Notes

- Columbus - 50g
  Centennial - 50g
  Citra - 50g
  Amarillo - 100g
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