Ale citra na rozruch

- Gravity **12.9 BLG**
- ABV **---**
- IBU **21**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.4 liter(s)**

Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **73 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg *(77.7%)*	79 %	6
Grain	Pszeniczny	1 kg *(19.4%)*	85 %	4
Grain	Acid Malt (zakwaszający)	0.15 kg *(2.9%)*	65 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	45 min	12.4 %
Boil	Citra	15 g	10 min	12.4 %
Whirlpool	Citra	15 g	10 min	12.4 %
Dry Hop	Citra	40 g	3 day(s)	15.2 %
Dry Hop	Dr Rudi	40 g	3 day(s)	11.3 %
Dry Hop	Galaxy	20 g	3 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis

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

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	5 g	Mash	60 min
Flavor	skórka pomarańczy	15 g	Boil	10 min