

Jakiś Biały!

- Gravity **15.2 BLG**
- ABV ---
- IBU **50**
- SRM **5**
- Style **White IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **27 %/h**
- Boil size **34.7 liter(s)**

Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.7 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **76C**
- Sparge using **23.4 liter(s)** of **76C** water or to achieve **34.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (52.9%)	80 %	4
Grain	Strzegom Pale Ale	1 kg (17.6%)	79 %	6
Grain	Strzegom Pszeniczny	1.02 kg (18%)	81 %	6
Grain	Płatki owsiane	0.5 kg (8.8%)	85 %	3
Grain	Karmelowy	0.15 kg (2.6%)	75 %	35

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	65 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	5 g	30 min	15.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	5 g	10 min	15.5 %
Boil	Mosaic	2 g	30 min	10 %
Boil	Centennial	2 g	30 min	10.5 %
Aroma (end of boil)	Mosaic	3 g	10 min	10 %
Aroma (end of boil)	Centennial	3 g	10 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safbrew S-33	Ale	Slant	250 ml	Safbrew
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Extras

Type	Name	Amount	Use for	Time
Flavor	Zest pomarańczy	58 g	Boil	15 min
Flavor	Zest limonki	40 g	Boil	15 min
Flavor	Kolendra	20 g	Boil	15 min
Flavor	Zest mandarynek	18 g	Boil	15 min