

żytnie APA

- Gravity **12.6 BLG**
- ABV ---
- IBU **34**
- SRM **12.2**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2 kg (34.8%)	85 %	8
Grain	Karmelowy żytni Strzegom	0.5 kg (8.7%)	75 %	150
Grain	Strzegom Pale Ale	3 kg (52.2%)	79 %	6
Grain	zakwaszający	0.25 kg (4.3%)	75 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	15 g	60 min	6 %
Boil	Galaxy	10 g	60 min	15 %
Aroma (end of boil)	Galaxy	10 g	10 min	15 %
Aroma (end of boil)	Cascade	10 g	10 min	6 %
Aroma (end of boil)	Galaxy	10 g	5 min	15 %
Aroma (end of boil)	Cascade	10 g	5 min	6 %
Dry Hop	Galaxy	10 g	5 day(s)	15 %
Dry Hop	Cascade	10 g	5 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
s-33	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Flavor	suszone skórki cytryny	20 g	Boil	15 min
Herb	werbena cytrynowa	30 g	Boil	15 min