

Probusowe

- Gravity **10.1 BLG**
- ABV ---
- IBU **10**
- SRM **20.8**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **14.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.2 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **16.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **7.7 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **45 C**, Time **20 min**
- Temp **50 C**, Time **30 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **50 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **46.6C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **30 min** at **50C**
- Keep mash **40 min** at **62C**
- Keep mash **50 min** at **72C**
- Sparge using **-0.1 liter(s)** of **76C** water or to achieve **16.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1 kg (40.7%)	79 %	6
Grain	Pilzneński	1 kg (40.7%)	81 %	4
Grain	Pszeniczny	0.1 kg (4.1%)	80 %	4
Grain	Żytni	0.3 kg (12.2%)	85 %	190
Grain	Strzegom Czekoladowy ciemny	0.06 kg (2.4%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	6 g	0 min	8.3 %
Boil	Challenger	6 g	30 min	8.3 %
Boil	Fuggles	5 g	30 min	4.9 %
Dry Hop	Fuggles	4 g	5 day(s)	4.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Danstar - Nottingham	Ale	Dry	11 g	Danstar
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