

#21 Polska Singielka

- Gravity **11.8 BLG**
- ABV ---
- IBU **50**
- SRM **19.2**
- Style **Brown IPA**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **89 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.2 kg (34.3%)	80 %	4
Grain	Strzegom Monachijski typ II	0.9 kg (25.7%)	79 %	22
Grain	Melanoiden Malt	0.2 kg (5.7%)	80 %	39
Grain	Carahell	0.3 kg (8.6%)	77 %	26
Grain	Strzegom Karmel 300	0.4 kg (11.4%)	70 %	299
Grain	Weyermann - Smoked Malt	0.5 kg (14.3%)	81 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	9.5 %
Boil	Marynka	10 g	20 min	9.5 %
Boil	Marynka	25 g	5 min	9.5 %
Dry Hop	Marynka	31 g	14 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale