

#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 |