

brudna pszczoła

- Gravity **32.5 BLG**
- ABV **16.5 %**
- IBU **49**
- SRM **45.4**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **23.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **70 C**, Time **25 min**

Mash step by step

- Heat up **17.6 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **25 min** at **70C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2.35 kg (21.4%)	85 %	8
Grain	Pilzneński	2.35 kg (21.4%)	81 %	4
Grain	Aroma CastleMalting	1.18 kg (10.7%)	78 %	100
Grain	Castle Cafe	0.59 kg (5.3%)	75.5 %	480
Grain	Strzegom Czekoladowy ciemny	0.29 kg (2.7%)	68 %	1200
Liquid Extract	Miód Gryczany (Buckwheat Honey)	4.24 kg (38.5%)	70 %	40

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	10 %
Boil	Puławski	50 g	45 min	8.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	27.06 g	Safale