

Ja piernicze

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **17**
- SRM **40.9**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **30.4 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Dust Malz Pale Ale	2 kg (26.3%)	79 %	7
Grain	Strzegom Pilzneński	2 kg (26.3%)	80 %	4
Grain	Durst Malz Karmel 30	1.2 kg (15.8%)	75 %	30
Grain	Colorado Honig	1 kg (13.2%)	79 %	12
Grain	Durst Malz Rost	0.2 kg (2.6%)	70 %	200
Grain	Fawcett - Pale Chocolate	1 kg (13.2%)	71 %	600
Grain	Jęczmień palony	0.2 kg (2.6%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	15 g	60 min	7 %
Boil	Challenger	15 g	30 min	7 %
Aroma (end of boil)	Challenger	15 g	2 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-04	Ale	Dry	11 g	---

Extras

Type	Name	Amount	Use for	Time
Flavor	Miód	50 g	Boil	5 min
Spice	Przyprawa do piernika	10 g	Boil	10 min
Spice	chili	2 g	Boil	10 min