

Pierniczkowe

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **21**
- SRM **22.8**

Batch size

- Expected quantity of finished beer **90 liter(s)**
- Trub loss **5 %**
- Size with trub loss **99 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **119.9 liter(s)**

Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **85.5 liter(s)**
- Total mash volume **111.4 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **85.5 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **60.3 liter(s)** of **76C** water or to achieve **119.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pszeniczny	8 kg (30.9%)	81 %	6
Grain	Viking Pale Ale malt	6 kg (23.2%)	80 %	5
Grain	Strzegom Wiedeński	6 kg (23.2%)	79 %	10
Grain	Płatki owsiane	2 kg (7.7%)	60 %	3
Grain	Weyermann - Carapils	2.6 kg (10%)	78 %	4
Grain	Strzegom Czekoladowy 1200	0.4 kg (1.5%)	68 %	1202
Grain	Strzegom Barwiący	0.9 kg (3.5%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	110 g	60 min	9.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	400 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Spice	skórka pomarańczowa	130 g	Boil	5 min
Spice	cynamon	100 g	Boil	2 min
Spice	goździki	20 g	Boil	2 min
Spice	gałka muszkatołowa	20 g	Boil	2 min
Fining	mech irlandzki	20 g	Boil	15 min