

Kopiernik-piernik

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **32**
- SRM **17.6**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.9 liter(s)**

Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **26.3 liter(s)**
- Total mash volume **33.8 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Mep@Ale	4 kg (53.3%)	80 %	6
Grain	Karmelowy Pszeniczny Strzegom	1 kg (13.3%)	79 %	130
Grain	Viking Munich Malt	1 kg (13.3%)	78 %	18
Grain	Optima Karmel 150	1 kg (13.3%)	75 %	150
Grain	Żytni	0.5 kg (6.7%)	85 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	37.5 g	60 min	10 %
Boil	Lublin (Lubelski)	18.75 g	10 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	14.38 g	Safale

Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon	8 g	Boil	15 min
Spice	Gałka Muszkatowa	9 g	Boil	15 min
Spice	Goździki	15 g	Boil	15 min
Flavor	Skórka z 3 pomarańczy	75 g	Boil	15 min
Flavor	Śliwki suszone	225 g	Boil	15 min
Spice	Imbir	8 g	Boil	15 min
Spice	Kardamon	12 g	Boil	15 min
Flavor	Śliwki suszone	162.5 g	Secondary	7 day(s)