

Ciemniak

- Gravity **11.7 BLG**
- ABV ---
- IBU **27**
- SRM **16.8**
- Style **Doppelbock**

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 **14.3 liter(s)**
- Total mash volume **19 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (63.2%)	79 %	6
Grain	Red crystal	0.5 kg (10.5%)	78 %	400
Grain	Caramunich® typ I	0.25 kg (5.3%)	73 %	90
Grain	Strzegom Pilzniejszy	1 kg (21.1%)	80 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	45 min	8.8 %
Boil	Lubelski	10 g	15 min	4 %
Boil	Mosaic	10 g	15 min	12 %
Boil	Citra	10 g	15 min	13.5 %
Boil	Warrior Queen UK	5 g	10 min	6.3 %