

CIEMNA NOC

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **25**
- SRM **20**
- Style **Dark American Lager**

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 **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **52 C**, Time **5 min**
- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	2 kg (35.7%)	80.5 %	4
Grain	Viking Pale Ale malt	3 kg (53.6%)	80 %	5
Grain	Viking kawowy	0.2 kg (3.6%)	40 %	400
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.6%)	40 %	1000
Grain	Karmelowy Czerwony	0.2 kg (3.6%)	40 %	59

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	5 g	60 min	15.5 %
Aroma (end of boil)	Chinook	25 g	15 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM705 Złota brama	Lager	Slant	600 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	chlorek wapnia	3 g	Mash	60 min
Fining	Fhirlfloc t	3 g	Boil	15 min