

Czarne z lakto

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **49**
- SRM **30.6**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (46.7%)	80 %	5
Grain	Strzegom Monachijski typ II	1 kg (18.7%)	79 %	22
Grain	Carafa II	0.5 kg (9.3%)	70 %	812
Grain	Strzegom Karmel 600	0.2 kg (3.7%)	68 %	601
Grain	Strzegom Czekoladowy jasny	0.3 kg (5.6%)	68 %	400
Grain	Płatki owsiane	0.5 kg (9.3%)	60 %	3
Sugar	Milk Sugar (Lactose)	0.35 kg (6.5%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	25 g	90 min	4 %
Boil	Magnum	20 g	90 min	13.5 %
Aroma (end of boil)	Marynka	20 g	15 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis