

Czarny Wilk

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **34**
- SRM **41.7**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (57.7%)	80 %	5
Grain	Strzegom Monachijski typ II	1 kg (19.2%)	79 %	22
Grain	Karmelowy żytni Strzegom	0.5 kg (9.6%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.4 kg (7.7%)	68 %	1200
Grain	Strzegom Barwiący	0.3 kg (5.8%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	35 g	55 min	9 %
Boil	lunga	19 g	5 min	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	1000 ml	Fermentum Mobile