

schwarz

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **26**
- SRM **19.3**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **20.7 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (54.3%)	80 %	5
Grain	Strzegom Monachijski typ I	1.5 kg (32.6%)	79 %	16
Grain	Karmelowy żytni Strzegom	0.25 kg (5.4%)	75 %	150
Grain	Weyermann - Carapils	0.1 kg (2.2%)	78 %	4
Grain	Carafa II	0.2 kg (4.3%)	70 %	812
Grain	Strzegom Czekoladowy ciemny	0.05 kg (1.1%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	15 g	60 min	10.5 %
Boil	Hallertau	15 g	15 min	6 %
Boil	Centennial	15 g	5 min	10.5 %
Boil	Hallertau	25 g	0 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
w34/70	Lager	Slant	150 ml	fermentis