

schwarzbier

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **25**
- SRM **27.7**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **3050 liter(s)**
- Trub loss **0 %**
- Size with trub loss **3050 liter(s)**
- Boil time **60 min**
- Evaporation rate **5.5556 %/h**
- Boil size **3219.4 liter(s)**

Mash information

- Mash efficiency **91 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **1575 liter(s)**
- Total mash volume **2100 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	375 kg (71.4%)	81 %	4
Grain	Monachijski	100 kg (19%)	80 %	16
Grain	Strzegom Barwiący	50 kg (9.5%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	3000 g	60 min	10 %
Boil	Hallertau Spalt Select	2000 g	0 min	3.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
w34/70	Lager	Dry	1000 g	Saflager