

Schwarz

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **24**
- SRM **30.9**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **34.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **25.9 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (30.9%)	81 %	4
Grain	Monachijski	3.5 kg (54.1%)	80 %	16
Grain	Strzegom Karmel 150	0.4 kg (6.2%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.6%)	68 %	1200
Grain	Weyermann - Carafa III	0.17 kg (2.6%)	70 %	1300
Grain	Jęczmień palony	0.1 kg (1.5%)	55 %	1100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau	35 g	60 min	4.5 %
Boil	Magnum	5 g	55 min	13.5 %
Boil	Hallertau	20 g	20 min	4.5 %
Aroma (end of boil)	Hallertau	20 g	5 min	4.5 %

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	7 g	Boil	15 min