

Black Wheat

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **21**
- SRM **14.7**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **45 C**, Time **10 min**
- Temp **52 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	3 kg (52.6%)	85 %	4
Grain	Strzegom Pilzneński	1 kg (17.5%)	80 %	4
Grain	Strzegom Monachijski typ II	1 kg (17.5%)	79 %	22
Grain	Carawheat (GR)	0.5 kg (8.8%)	68 %	79
Grain	Strzegom Karmel 600	0.2 kg (3.5%)	68 %	601

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	60 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
wb06	Wheat	Dry	11.5 g	---