

ala Fortuna Czarne (niedokończona)

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **15**
- SRM **51.2**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

- Temp **70 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **1 min** at **76C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (66.7%)	80 %	5
Grain	Strzegom Karmel 600	0.5 kg (16.7%)	68 %	601
Grain	Viking Czekoladowy ciemny	0.5 kg (16.7%)	67 %	900

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka - suszona szyszka	20 g	15 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa - W35 German Lager	Lager	Dry	5 g	Gozdawa

Extras

Type	Name	Amount	Use for	Time
Flavor	Orzeszki cola	100 g	Secondary	14 day(s)