

# Czarna Krew 2017

---

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **33**
- SRM **34.7**
- Style **Dry Stout**

## 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 **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **18.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **72C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (64%)	80 %	5
Grain	Monachijski	1.5 kg (24%)	80 %	16
Grain	Jęczmień palony	0.4 kg (6.4%)	55 %	985
Grain	Czekoladowy	0.35 kg (5.6%)	60 %	788

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale