

# "Czarna Dama"

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **26**
- SRM **32**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.6 liter(s)**
- Total mash volume **10.2 liter(s)**

## Steps

- Temp **68 C**, Time **50 min**
- Temp **67 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **7.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **10 min** at **67C**
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.5 kg (58.8%)	80 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (19.6%)	79 %	16
Grain	Strzegom Karmel 600	0.15 kg (5.9%)	68 %	601
Grain	Strzegom Czekoladowy ciemny	0.15 kg (5.9%)	68 %	1200
Grain	Strzegom Barwiący	0.05 kg (2%)	68 %	1300
Grain	Barley, Flaked	0.2 kg (7.8%)	70 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	22 g	60 min	5.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	100 ml	---

## Extras

Type	Name	Amount	Use for	Time
Other	Laktoza	250 g	Boil	10 min