

# Czarno czarna porzeczka

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **31**
- SRM **24.8**
- Style **Sweet Stout**

## 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 **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **20 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **70C**
- Keep mash **20 min** at **78C**
- Sparge using **7.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bestmalz Red X	1 kg (23.3%)	79 %	30
Grain	strzegom Carmel sweet	0.2 kg (4.7%)	75 %	60
Grain	viking malt colorade pale base	1 kg (23.3%)	79 %	5
Grain	Strzegom Wiedeński	1 kg (23.3%)	79 %	10
Grain	Biscuit Malt	0.5 kg (11.6%)	79 %	45
Grain	Fawcett - Pale Chocolate	0.3 kg (7%)	71 %	600
Sugar	Milk Sugar (Lactose)	0.3 kg (7%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M42 New World Strong Ale	Ale	Dry	10 g	Mangrove Jack's
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### Extras

Type	Name	Amount	Use for	Time
Flavor	sok z czarnej porzeczki	1000 g	Boil	5 min
Other	płatki drzewa wiśniowego	30 g	Secondary	14 day(s)