

Czarna słodycz

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **29**
- SRM **19.1**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.7 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **66 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **10 min** at **66C**
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (62.3%)	79 %	6
Grain	Strzegom Karmel 30	0.3 kg (4.7%)	75 %	30
Grain	Brown Malt (British Chocolate)	0.37 kg (5.8%)	70 %	175
Grain	Jęczmień palony	0.2 kg (3.1%)	55 %	1000
Grain	Strzegom Karmel 30	0.3 kg (4.7%)	75 %	30
Sugar	Milk Sugar (Lactose)	0.75 kg (11.7%)	76.1 %	0
Grain	Barley, Flaked	0.5 kg (7.8%)	70 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Boil	Marynka	10 g	40 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis