

# Czarniawe. Back in Black

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **68**
- SRM **37.5**
- Style **American 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **24.2 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.5 kg (74.4%)	--- %	4
Grain	Płatki owsiane	0.4 kg (6.6%)	85 %	3
Grain	Karmelowy Czerwony	0.45 kg (7.4%)	75 %	59
Grain	Strzegom Czekoladowy ciemny	0.45 kg (7.4%)	68 %	1200
Grain	Jęczmień palony	0.15 kg (2.5%)	55 %	985
Grain	Carafa	0.1 kg (1.7%)	70 %	664

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	35 g	60 min	13 %
Boil	Cascade	30 g	30 min	5 %
Boil	Cascade	30 g	10 min	5 %
Boil	Cascade	20 g	1 min	5 %
Boil	Chinook	10 g	10 min	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale