

# Ciemne

- Gravity **28.3 BLG**
- ABV **13.7 %**
- IBU **80**
- SRM **57.9**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **47.3 liter(s)**
- Total mash volume **60.8 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **47.3 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **-5.2 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	słód diastyczny	1 kg (7.4%)	80 %	3
Grain	Viking Pale Ale malt	5 kg (37%)	80 %	5
Grain	Viking Malt Wędzony Czereśnią	1 kg (7.4%)	82 %	10
Grain	Caraaroma	0.5 kg (3.7%)	78 %	400
Grain	Strzegom Czekoladowy 1200	1 kg (7.4%)	68 %	1202
Grain	żytni czekoladowy	0.4 kg (3%)	65 %	600
Grain	słód wędzony wisnią	1 kg (7.4%)	81 %	10
Grain	Płatki owsiane	2 kg (14.8%)	85 %	3
Grain	Płatki orkiszowe	1.6 kg (11.9%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga	100 g	90 min	9.5 %
Boil	lunga	50 g	20 min	9.5 %
Aroma (end of boil)	lunga	50 g	8 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
S-04	Ale	Dry	24 g	---