

# Kominiorz

- Gravity **16.1 BLG**
- ABV ---
- IBU **57**
- SRM **61.9**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.3 liter(s)**
- Total mash volume **31 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **23.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (64.5%)	79 %	6
Grain	pale ale tipple	1 kg (12.9%)	79 %	6
Grain	karmelowy jasny strzegom	0.5 kg (6.5%)	75 %	30
Grain	kawowy castlemalting	0.25 kg (3.2%)	77 %	250
Grain	czekoladowy bestmalz	0.5 kg (6.5%)	75 %	1000
Grain	carafa special 3 wayermann	0.25 kg (3.2%)	65 %	1300
Grain	Jęczmień palony	0.25 kg (3.2%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	45 min	13.5 %
Boil	Citra	20 g	30 min	12 %
Boil	Citra	20 g	15 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	20 g	Safale
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