

# CZARNA MOZAIKA

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- Gravity **15 BLG**
- ABV ---
- IBU **44**
- SRM **47.6**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **44.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **30.4 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **22.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **29.1 liter(s)** of **76C** water or to achieve **44.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (56.8%)	80 %	4
Grain	Strzegom Pale Ale	1.5 kg (17%)	79 %	6
Grain	Black (Patent) Malt	0.6 kg (6.8%)	55 %	1500
Grain	Caraaroma	0.5 kg (5.7%)	78 %	400
Adjunct	płatki jęczmienne	1.2 kg (13.6%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	50 g	30 min	12.4 %
Aroma (end of boil)	Mosaic	50 g	10 min	12.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	270 ml	Safale