

# dark emperor

- Gravity **27.2 BLG**
- ABV **13 %**
- IBU **50**
- SRM **85.9**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **100 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **35.1 liter(s)**
- Total mash volume **46.8 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **35.1 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **50 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **7.4 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (31.5%)	81 %	4
Grain	Viking Pale Ale malt	4 kg (31.5%)	80 %	5
Grain	Strzegom Pszeniczny	2 kg (15.7%)	81 %	6
Grain	Strzegom Czekoladowy jasny	0.5 kg (3.9%)	68 %	400
Grain	Strzegom Czekoladowy ciemny	0.2 kg (1.6%)	68 %	1200
Grain	Strzegom Barwiący	1 kg (7.9%)	68 %	1300
Sugar	kandyzowany	1 kg (7.9%)	--- %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	citra	55 g	60 min	17.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M42 New World Strong Ale	Ale	Slant	400 ml	Mangrove Jack's