

## 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<br>Czekoladowy jasny  | 0.5 kg (3.9%) | 68 %  | 400  |
| Grain | Strzegom<br>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<br>M42 New World<br>Strong Ale | Ale  | Slant | 400 ml | Mangrove Jack's |