

# Rebel clone

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **22**
- SRM **21.2**
- Style **Munich Dunkel**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **19.9 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 2 kg (35.1%)   | 79 %  | 22  |
| Grain | Viking pilzneński           | 1.7 kg (29.8%) | 80 %  | 5   |
| Grain | Viking golden ale           | 1 kg (17.5%)   | 80 %  | 14  |
| Grain | Viking Stód Red Ale         | 0.5 kg (8.8%)  | 70 %  | 70  |
| Grain | Wyerman cararoma            | 0.3 kg (5.3%)  | 74 %  | 350 |
| Grain | Weyermann - Carafa I        | 0.2 kg (3.5%)  | 70 %  | 690 |

## Hops

| Use for | Name         | Amount | Time   | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil    | Tradition DE | 30 g   | 40 min | 6 %        |
| Boil    | Tradition De | 20 g   | 10 min | 6 %        |

## Yeasts

| Name                               | Type  | Form | Amount | Laboratory      |
|------------------------------------|-------|------|--------|-----------------|
| Mangrove Jack's M84 Bohemian Lager | Lager | Dry  | 11 g   | Mangrove Jack's |

## Extras

| Type   | Name     | Amount | Use for | Time   |
|--------|----------|--------|---------|--------|
| Fining | Whirfloc | 5 g    | Boil    | 10 min |