

# Marcowe

---

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **39**
- SRM **6**

## Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **2 %/h**
- Boil size **31.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **69 C**, Time **50 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **50 min** at **69C**
- Keep mash **0 min** at **76C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **31.6 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount        | Yield | EBC |
|-------|-------------------|---------------|-------|-----|
| Grain | Pilzneński        | 4 kg (61.5%)  | 81 %  | 4   |
| Grain | Monachijski       | 2 kg (30.8%)  | 80 %  | 16  |
| Grain | Red Active Viking | 0.5 kg (7.7%) | 79 %  | 35  |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 30 g   | 60 min | 10 %       |
| Boil                | Magnum            | 5 g    | 60 min | 13.5 %     |
| Aroma (end of boil) | Lublin (Lubelski) | 60 g   | 15 min | 4 %        |

## Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 34.5 g | Fermentis  |