

# WaldeMar Marcowe

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **23**
- SRM **8.5**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **8 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **77 min**
- Evaporation rate **10 %/h**
- Boil size **23.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **23.9 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount          | Yield  | EBC |
|-------|----------------------------------|-----------------|--------|-----|
| Grain | Viking Munich Malt               | 1.65 kg (34.4%) | 78 %   | 18  |
| Grain | Viking Pilsner malt              | 1.31 kg (27.3%) | 82 %   | 4   |
| Grain | Viking Vienna Malt               | 1.45 kg (30.2%) | 79 %   | 7   |
| Grain | Weyermann - Carared              | 0.152 kg (3.2%) | 75 %   | 45  |
| Grain | Weyermann Carabohemian           | 0.115 kg (2.4%) | 76 %   | 180 |
| Grain | Acid Malt                        | 0.071 kg (1.5%) | 58.7 % | 6   |
| Grain | Słód Caramunich Typ II Weyermann | 0.05 kg (1%)    | 73 %   | 120 |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 20 g   | 60 min | 7.7 %      |
| Boil    | Lublin (Lubelski) | 30 g   | 20 min | 2.5 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                  |       |     |        |           |
|------------------|-------|-----|--------|-----------|
| Saflager W 34/70 | Lager | Dry | 11.5 g | Fermentis |
|------------------|-------|-----|--------|-----------|

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 10 g   | Boil    | 10 min |