

Marcowe

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **24**
- SRM **7.8**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **53 C**, Time **15 min**
- Temp **64 C**, Time **40 min**
- Temp **73 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **21.7 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **73C**
- Keep mash **0 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 1 kg (16.1%) | 82 % | 4 |
| Grain | Weyermann - Pilsner Malt | 1 kg (16.1%) | 81 % | 5 |
| Grain | Weyermann - Vienna Malt | 1 kg (16.1%) | 81 % | 8 |
| Grain | Weyermann Monachiski I | 2.5 kg (40.3%) | 80 % | 16 |
| Grain | Viking Karmel 150 | 0.2 kg (3.2%) | 75 % | 150 |
| Grain | Platki owsiane błyskawiczne | 0.5 kg (8.1%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Fuggles | 30 g | 60 min | 4.2 % |
| Boil | Tradition | 50 g | 20 min | 5 % |

Yeasts

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

| | | | | |
|------------------|-------|-------|---------|-----------|
| Saflager W 34/70 | Lager | Slant | 1000 ml | Fermentis |
|------------------|-------|-------|---------|-----------|

Extras

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