

Rauchbier Märzen

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **19**
- SRM **10.8**
- Style **Oktoberfest/Märzen**

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 **27.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **20 min**
- Temp **100 C**, Time **60 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **78C**
- Keep mash **60 min** at **100C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Monachijski | 3.1 kg (54.4%) | 80 % | 16 |
| Grain | Viking Wędzony bukiem | 2.5 kg (43.9%) | 82 % | 10 |
| Grain | Strzegom Karmel 600 | 0.1 kg (1.8%) | 68 % | 601 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------------------|--------|--------|------------|
| Whirlpool | Hallertau Tradition | 30 g | 30 min | 5.6 % |
| Boil | Hallertau Blanc | 13 g | 40 min | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------|-------|------|--------|------------|
| lalbrew lager yeast | Lager | Dry | 11 g | lallemand |