

# Kellerbier

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **6.3**
- Style **Munich Helles**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **13.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **12.6 liter(s)**

## Steps

- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **9.8 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **50 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **13.5 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount          | Yield  | EBC |
|-------|---------------------|-----------------|--------|-----|
| Grain | Mep@Ale             | 1.73 kg (61.8%) | 80 %   | 7   |
| Grain | Strzegom Wiedeński  | 0.47 kg (16.8%) | 79 %   | 10  |
| Grain | Viking Monach I     | 0.3 kg (10.7%)  | 78 %   | 14  |
| Grain | Viking Monach II    | 0.2 kg (7.1%)   | 79 %   | 20  |
| Grain | BESTMALZ - Carapils | 0.1 kg (3.6%)   | 80.5 % | 5   |

## Hops

| Use for    | Name            | Amount | Time   | Alpha acid |
|------------|-----------------|--------|--------|------------|
| First Wort | Northern Brewer | 7 g    | 87 min | 11.6 %     |
| Boil       | Mittelfruh      | 20 g   | 20 min | 3.7 %      |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Skare | Ale  | Dry  | 1 g    | Kveik      |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|             |               |      |           |          |
|-------------|---------------|------|-----------|----------|
| Other       | Platki dębowe | 15 g | Secondary | 7 day(s) |
| Water Agent | Gips          | 2 g  | Mash      | 90 min   |

## Notes

- Fermentacja 20-21C, pH 5,6-5,7,  
4SLYZLW, 5l Oaza + 11,3l kranówka + 2g gipsu  
Ca - 91,3  
Mg - 13,4  
Na - 74  
Cl - 127  
SO4 - 113,5  
rez.alk. - 134,4  
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