

## 05C. Rauch Helles

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **4.1**
- Style **Munich Helles**

### Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **3 %**
- Size with trub loss **17.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **20.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.57 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **19.5 liter(s)**

### Steps

- Temp **55 C**, Time **5 min**
- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **16 liter(s)** of strike water to **58.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **20.3 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Pilzneński                 | 2.8 kg (80%)  | 81 %  | 4   |
| Grain | Rauch Malt (Germany)       | 0.42 kg (12%) | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.21 kg (6%)  | 79 %  | 16  |
| Grain | Viking melanoidynowy       | 0.07 kg (2%)  | 75 %  | 60  |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 12 g   | 60 min | 13.5 %     |

### Yeasts

| Name    | Type | Form   | Amount | Laboratory |
|---------|------|--------|--------|------------|
| oyl-071 | Ale  | Liquid | 100 ml | ---        |

### Extras

| Type        | Name              | Amount | Use for | Time   |
|-------------|-------------------|--------|---------|--------|
| Water Agent | CaCl <sub>2</sub> | 3 g    | Mash    | 60 min |

## Notes

- 7-10 22-24C  
14 2C  
*Oct 23, 2021, 4:36 PM*