

## #28 Kolsh

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **26**
- SRM **2.8**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **0 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.6 liter(s)**

### Mash information

- Mash efficiency **91 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

### Steps

- Temp **45 C**, Time **0 min**
- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **12.9 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **0 min** at **45C**
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

### Fermentables

| Type  | Name                            | Amount         | Yield | EBC |
|-------|---------------------------------|----------------|-------|-----|
| Grain | Słodownia Strzegom - pilzneński | 3.9 kg (90.7%) | 80 %  | 3   |
| Grain | Weyermann - słód orkiszowy      | 0.2 kg (4.7%)  | 82 %  | 5   |
| Grain | Słodownia Strzegom - pszeniczny | 0.2 kg (4.7%)  | 83 %  | 3   |

### Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Magnum    | 16 g   | 60 min | 12.1 %     |
| Boil    | Tradition | 20 g   | 15 min | 5.2 %      |

### Yeasts

| Name                | Type | Form    | Amount | Laboratory       |
|---------------------|------|---------|--------|------------------|
| FM50 - Kłosa Kansas | Ale  | Culture | 200 g  | Fermentum Mobile |