

chełmek kylsz

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **40**
- SRM **3.4**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.9 liter(s)**
- Total mash volume **15.3 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **11.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **19.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------|----------------|-------|-----|
| Grain | Pilzneński | 3.1 kg (91.2%) | 81 % | 4 |
| Grain | Pszeniczny | 0.3 kg (8.8%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Magnum | 20 g | 60 min | 10.6 % |
| Aroma (end of boil) | Hallertau Spalt Select | 30 g | 5 min | 3.4 % |
| Whirlpool | Hallertau Spalt Select | 30 g | 20 min | 3.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------|------|--------|--------|------------|
| Wyeast - Kolsch | Ale | Liquid | 100 ml | --- |