

- Gravity **12.6 BLG**
- ABV ---
- IBU **63**
- SRM **4.8**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **31.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **44 C**, Time **0 min**
- Temp **54 C**, Time **10 min**
- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **0 min** at **44C**
- Keep mash **10 min** at **54C**
- Keep mash **25 min** at **62C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **31.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilzneński | 5.3 kg (94.6%) | 81 % | 4 |
| Grain | Strzegom Karmel 30 | 0.3 kg (5.4%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil | Marynka | 50 g | 60 min | 10 % |
| Boil | Marynka | 10 g | 30 min | 10 % |
| Boil | Lublin (Lubelski) | 40 g | 20 min | 4 % |
| Boil | Lublin (Lubelski) | 20 g | 5 min | 4 % |
| Whirlpool | Lublin (Lubelski) | 20 g | 0 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale | Dry | 11.5 g | Safbrew |

Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 10 g | Mash | 10 min |