

Pszeżytek

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **3.8**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **1 %**
- Size with trub loss **20.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.2 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **45 C**, Time **10 min**
- Temp **53 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.2 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **24.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Weyermann - Acidulated Malt | 0.15 kg (3.4%) | 80 % | 6 |
| Grain | Strzegom Żytni | 0.1 kg (2.3%) | 75 % | 35 |
| Grain | Strzegom Pszeniczny | 1 kg (23%) | 81 % | 5 |
| Grain | Strzegom Pilzneński | 3 kg (69%) | 80 % | 4 |
| Grain | Płatki jęczmienne | 0.1 kg (2.3%) | 80 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Lublin (Lubelski) | 20 g | 60 min | 4.8 % |
| Boil | Sybilla | 20 g | 60 min | 4.6 % |
| Boil | Lublin (Lubelski) | 5 g | 30 min | 4.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---------------------------------|-----|-----|------|-----|
| Gozdawa Old German Altbier 9 | Ale | Dry | 11 g | --- |
|---------------------------------|-----|-----|------|-----|