

Letnie Ale cytrusowo-kardamonowe

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **24**
- SRM **5.8**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 2.5 kg (46.3%) | 80 % | 4 |
| Grain | Strzegom Wiedeński | 2 kg (37%) | 79 % | 10 |
| Grain | Strzegom Pszeniczny | 0.4 kg (7.4%) | 81 % | 6 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (9.3%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Hallertau | 25 g | 60 min | 4.5 % |
| Boil | Hallertau | 25 g | 20 min | 4.5 % |
| Boil | Apollo | 15 g | 10 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 200 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------------|--------|---------|--------|
| Flavor | skórka cytrynowa | 44 g | Boil | 10 min |
| Flavor | Skórka limonki | 16 g | Boil | 10 min |

| | | | | |
|-------|-----------------|------|------|--------|
| Spice | kardamon | 5 g | Boil | 10 min |
| Spice | trawa cytrynowa | 25 g | Boil | 5 min |