

Little Ala best bitter

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **32**
- SRM **10.5**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.75 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19 liter(s)**

Steps

- Temp **53 C**, Time **10 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **57.4C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.5 kg (87.5%) | 82 % | 6 |
| Grain | Strzegom Karmelowy 200 | 0.5 kg (12.5%) | 75 % | 200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Whirlpool | Amarillo | 30 g | 1 min | 8.9 % |
| Aroma (end of boil) | Amarillo | 15 g | 5 min | 8.9 % |
| Aroma (end of boil) | Nugget | 15 g | 15 min | 12.8 % |
| Boil | Columbus/Tomahawk/Zeus | 10 g | 45 min | 15.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|--------|----------------|-----|------|--------|
| Fining | mech irlandzki | 4 g | Boil | 15 min |
|--------|----------------|-----|------|--------|