

Ella

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **33**
- SRM **5.8**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **51 liter(s)**
- Trub loss **5 %**
- Size with trub loss **53.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **65.4 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **31.5 liter(s)**
- Total mash volume **44.1 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **31.5 liter(s)** of strike water to **75.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Sparge using **46.5 liter(s)** of **76C** water or to achieve **65.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 11 kg (87.3%) | 80 % | 7 |
| Grain | Żytni | 1 kg (7.9%) | 85 % | 8 |
| Grain | Biscuit Malt | 0.3 kg (2.4%) | 79 % | 45 |
| Grain | Caramel/Crystal Malt - 30L | 0.3 kg (2.4%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil | Ella (AUS) | 60 g | 30 min | 16.7 % |
| Dry Hop | Ella (AUS) | 40 g | 3 day(s) | 16.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|--------|--------|------------|
| WLP007 - Dry English Ale Yeast | Ale | Liquid | 600 ml | White Labs |
| Gęstwa | | | | |

Extras

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

| | | | | |
|-------------|--------|-----|------|--------|
| Water Agent | Gips | 5 g | Mash | 50 min |
| Water Agent | Lactol | 4 g | Mash | --- |