

# Lekka ne ipa z modyfikacją wody

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **19**
- SRM **5.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **28 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **27.1 liter(s)**

## Steps

- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.8 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **28 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount        | Yield | EBC |
|-------|-----------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński   | 4 kg (63.5%)  | 80 %  | 4   |
| Grain | Melanoiden Malt       | 0.5 kg (7.9%) | 80 %  | 39  |
| Grain | Pszeniczny            | 1 kg (15.9%)  | 85 %  | 4   |
| Grain | Jęczmień niesłodowany | 0.4 kg (6.3%) | 75 %  | 2   |
| Grain | Płatki owsiane        | 0.4 kg (6.3%) | 60 %  | 3   |

## Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| First Wort          | Equinox    | 5 g    | 60 min   | 13.1 %     |
| Boil                | Centennial | 15 g   | 30 min   | 10.5 %     |
| Aroma (end of boil) | Centennial | 35 g   | 0 min    | 10.5 %     |
| Whirlpool           | Mosaic     | 50 g   | 0 min    | 10 %       |
| Whirlpool           | Simcoe     | 28 g   | 0 min    | 13.2 %     |
| Dry Hop             | Citra      | 60 g   | 5 day(s) | 12 %       |
| Dry Hop             | Amarillo   | 30 g   | 5 day(s) | 9.5 %      |
| Dry Hop             | Cascade    | 30 g   | 5 day(s) | 6 %        |

## Yeasts

| Name                 | Type | Form  | Amount | Laboratory       |
|----------------------|------|-------|--------|------------------|
| FM55 Zielone Wzgórze | Ale  | Slant | 200 ml | Fermentum Mobile |

## Extras

| Type        | Name            | Amount | Use for | Time |
|-------------|-----------------|--------|---------|------|
| Water Agent | chlorek wapnia  | 10 g   | Mash    | ---  |
| Water Agent | kwask fosforowy | 5 g    | Mash    | ---  |
| Water Agent | gips            | 5 g    | Mash    | ---  |

## Notes

- chmiel equinox 60 g i chmiel cascade 30 g do fermentacji burzliwej  
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