

## Low-alc APA

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **19**
- SRM **4.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 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 **74 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **16.2 liter(s)** of strike water to **83C**
- Add grains
- Keep mash **60 min** at **74C**
- Keep mash **1 min** at **78C**
- Sparge using **22.2 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount        | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński  | 1 kg (18.5%)  | 80 %  | 4   |
| Grain | Strzegom Pale Ale    | 3 kg (55.6%)  | 79 %  | 6   |
| Grain | Strzegom Wiedeński   | 1 kg (18.5%)  | 79 %  | 10  |
| Grain | Carared              | 0.2 kg (3.7%) | 75 %  | 39  |
| Grain | Weyermann - Carapils | 0.2 kg (3.7%) | 78 %  | 4   |

### Hops

| Use for   | Name      | Amount | Time     | Alpha acid |
|-----------|-----------|--------|----------|------------|
| Whirlpool | Zula      | 20 g   | 20 min   | 7 %        |
| Whirlpool | El Dorado | 20 g   | 20 min   | 15 %       |
| Whirlpool | Idaho 7   | 20 g   | 20 min   | 12 %       |
| Dry Hop   | Zula      | 120 g  | 3 day(s) | 7 %        |
| Dry Hop   | El Dorado | 30 g   | 3 day(s) | 15 %       |
| Dry Hop   | Idaho 7   | 30 g   | 3 day(s) | 14 %       |

### Yeasts

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

|                      |     |        |         |                  |
|----------------------|-----|--------|---------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 1000 ml | Fermentum Mobile |
|----------------------|-----|--------|---------|------------------|

### Extras

| Type        | Name                | Amount | Use for | Time  |
|-------------|---------------------|--------|---------|-------|
| Water Agent | Pozywka dla drozdzy | 3 g    | Boil    | 2 min |