

## Apa 82

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **38**
- SRM ---

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.1 liter(s)**
- Total mash volume **11.7 liter(s)**

### Fermentables

| Type  | Name             | Amount         | Yield | EBC |
|-------|------------------|----------------|-------|-----|
| Grain | Pale ale         | 2 kg (76.9%)   | --- % | --- |
| Grain | Pszeniczny jasny | 0.25 kg (9.6%) | --- % | --- |
| Grain | Karmelowy        | 0.15 kg (5.8%) | --- % | --- |
| Grain | Pale ale 2       | 0.2 kg (7.7%)  | --- % | --- |

### Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Warrior  | 6 g    | 60 min | 14.7 %     |
| Boil    | Citra    | 10 g   | 15 min | 13.5 %     |
| Boil    | Amarillo | 10 g   | 7 min  | 8.8 %      |
| Boil    | Citra    | 15 g   | 0 min  | 13.5 %     |
| Boil    | Amarillo | 15 g   | 0 min  | 8.8 %      |

### Notes

- Na cicha poszło: 25 gr citry, 25gr amarillo.  
*Jan 30, 2018, 6:25 PM*