

APA Maćkowa

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **72**
- SRM **9.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|---------|---------------|-------|-----|
| Liquid Extract | Bruntal | 3.4 kg (100%) | 81 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Simcoe | 15 g | 60 min | 11.5 % |
| Boil | Centennial | 15 g | 60 min | 9.7 % |
| Boil | Amarillo | 20 g | 60 min | 7.1 % |
| Aroma (end of boil) | Simcoe | 25 g | 5 min | 11.5 % |
| Aroma (end of boil) | Centennial | 25 g | 5 min | 9.7 % |
| Aroma (end of boil) | Amarillo | 25 g | 5 min | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |