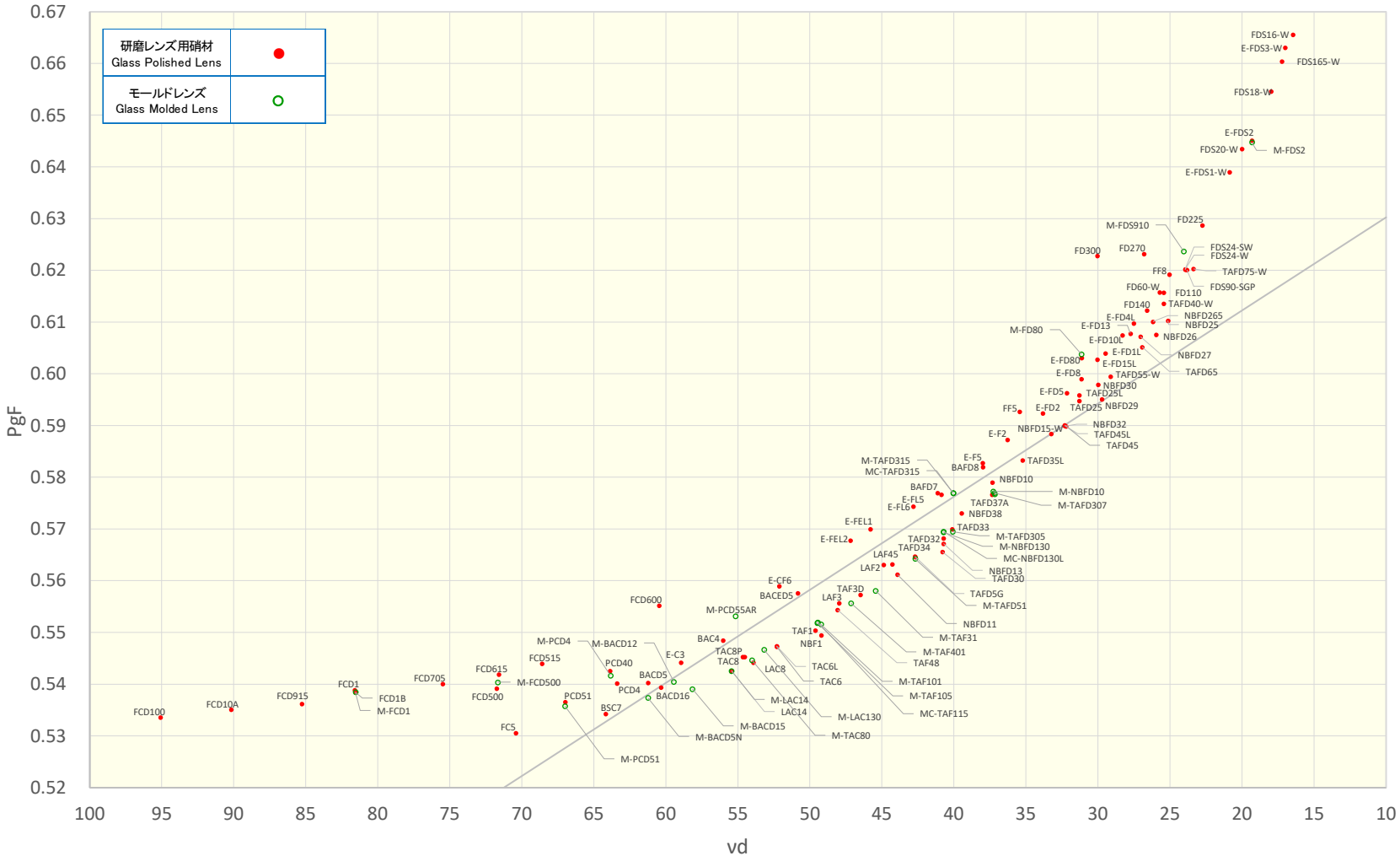PgF - vd diagram