the viscosity of the first lubricant 21 exceeds approximately 20,000 cP, fluidity of the first lubricant 21 declines dramatically and the first lubricant 21 can no longer extend and slide with ease between the inner peripheral surface 11a of at least the tip part 11 of the condom main body 1 and the glans part. Therefore, the viscosity of the first lubricant 21 is preferably set to 5,000 to 20,000 cP.

When the viscosity of the second lubricant 22 is less than approximately 100 cP, a risk arises that the second lubricant 22 may be absorbed into the body, and the second lubricant 22 cannot be used and is therefore not preferable. In addition, when the viscosity of the second lubricant 22 exceeds approximately 300 cP, fluidity dramatically declines and the second lubricant 22 hardly penetrates into a gap of the body part 12 of the wound condom main body 1. Therefore, the viscosity of the second lubricant 22 is preferably set to 100 to 300 cP.

When the viscosity of the third lubricant 23 is less than approximately 500 cP, the third lubricant 23 is no longer held on the outer peripheral surface 11b of the tip part 11 of the condom main body 1 and a function (effect) of reducing resistance during insertion to the female sexual organ (vagina) decreases. In addition, when the viscosity of the third lubricant 23 exceeds approximately 2,000 cP, fluidity dramatically declines and the third lubricant 23 can no longer readily extend between the outer peripheral surface 11b of the tip part 11 of the condom main body 1 and a surface of the vagina. Therefore, the viscosity of the third lubricant 23 is preferably set to 500 to 2,000 cP.

In other words, a viscosity ratio of the first lubricant 21, the second lubricant 22, and the third lubricant 23 is set to 5,000 to 20,000 : 100 to 300 : 500 to 2,000 = 50 to 200 : 1 to 3 : 5 to 20. Specifically, the viscosity ratio of the lubricants is preferably set to first lubricant : second lubricant : third lubricant = 50 : 1 : 5. In this case, the viscosity of the first lubricant 21 is approximately 10,000 cP, the viscosity of the second lubricant 22 is approximately 200 cP, and the viscosity of the third lubricant 23 is approximately 1,000 cP.

[0011]

When the fill amount of the first lubricant 21 is less than approximately 100 mg, the first lubricant 21 does not sufficiently entirely extend between the inner peripheral surface 11a of at least the tip part 11 of the condom main body 1 and the glans part and an appropriate adherence is not obtained. In addition, when the fill amount of the first lubricant 21 exceeds approximately 1,000 mg, the first lubricant 21 more readily leaks from the opening 13 when wearing the condom main body 1 on the penis. Therefore, the fill amount of the first lubricant 21 is preferably set to 100 to 1,000 mg.

Therefore, a decline in viscosity of the first lubricant 21 due to perspiration, pressure of insertion, thrusting, and the like during coitus can be prevented and a high adherence with the penis can be obtained.

As a result, compared to conventional jellies that contain a water-soluble polyol-based compound and carboxy vinyl polymerwith superior thixotropy, the inner peripheral surface 11a of the tip part 11 of the condom main body 1 continuously adheres to the glans part using the first lubricant 21 and a strong grip force can be maintained during coitus. Accordingly, shifting of the tip part 11 with respect to the glans part, an occurrence of wrinkles, penetration of air, and the like can be reliably prevented. Therefore, damage and removal of the tip part 11 due to friction during coitus can be prevented and a higher level of safety can be achieved.

Furthermore, due to a decrease in a sense of discomfort caused by shifting, stiffening, or catching of the condom main body 1 and an increased sense of adherence, the user (male) during coitus can experience a renewed sense of togetherness between the penis and the female sexual organ (vagina) and appreciate improved sexual sensitivity.

[0015]

In particular, preferably, the third lubricant 23 is provided on an outer side of the second lubricant 22 and the third lubricant 23 is made of a silicone oil with a higher viscosity than the viscosity of the second lubricant 22.

In this case, the outer peripheral surface 11b of at least the tip part 11 of the condom main body 1 is provided with the third lubricant 23 made of a silicone oil with a higher viscosity (medium viscosity) than the viscosity of the second lubricant 22 so as to sandwich the second lubricant 22. Accordingly, during insertion of the penis wearing the condom main body 1, the third lubricant 23 with high viscosity is pooled between the female sexual organ (surface of the vagina) and the outer peripheral surface 11b of the tip part 11 which oppose each other.

Since the medium-viscosity silicone oil that constitutes the third lubricant 23 is not water soluble, the silicone oil does not mix with moisture such as female secretion and the viscosity does not change (decline) even when subjected to certain force.

Therefore, a decline in viscosity of the third lubricant 23 due to female secretion, pressure of insertion, thrusting, and the like can be prevented and frictional resistance with the surface of the vagina can be reduced.

As a result, the users (male and female) can experience a smoother sense of insertion during coitus.

[0019]

On the other hand, in Comparative examples 1 to 9 each, less than 100 mg or more than 1,000 mg of the first lubricant with a viscosity lower than 5,000 cP or higher than 20,000 cP was filled, less than 100 mg or more than 1,000 mg of the second lubricant with a viscosity lower than 100 cP or higher than 300 cP was filled, and less than 100 mg or more than 1,000 mg of the third lubricant with a viscosity lower than 500 cP or higher than 2,000 cP was filled.

Specifically, Comparative example 1 differs from Example 1 and Example 2 in that 550 mg of the first lubricant with a viscosity of 4,000 cP was filled, and the viscosities and fill amounts of the second lubricant and the third lubricant were the same as in Example 1 and Example 2.

Comparative example 2 differs from Example 1 and Example 2 in that 550 mg of the first lubricant with a viscosity of 21,000 cP was filled, and the viscosities and fill amounts of the second lubricant and the third lubricant were the same as those in Example 1 and Example 2.

Comparative example 3 differs from Example 3 and Example 4 in that 50 mg of the first lubricant with a viscosity of 10,000 cP was filled, and the viscosities and fill amounts of the second lubricant and the third lubricant were the same as those in Example 3 and Example 4.

Comparative example 4 differs from Example 3 and Example 4 in that 1,100 mg of the first lubricant with a viscosity of 10,000 cP was filled, and the viscosities and fill amounts of the second lubricant and the third lubricant were the same as those in Example 3 and Example 4.

Comparative example 5 differs from Example 6 and Example 7 in that 550 mg of the third lubricant with a viscosity of 400 cP were filled, and the viscosities and fill amounts of the first lubricant and the second lubricant were the same as those in Example 6 and Example 7.

Comparative example 6 differs from Example 6 and Example 7 in that 550 mg of the third lubricant with a viscosity of 2,100 cP were filled, and the viscosities and fill amounts of the first lubricant and the second lubricant were the same as those in Example 6 and Example 7.

Comparative example 7 differs from Example 8 and Example 9 in that 50 mg of the third lubricant with a viscosity of 1,000 cP were filled, and the viscosities and fill amounts of the first lubricant and the second lubricant were the same as those in Example 8 and Example 9.

not an issue, and D: inferior insertion performance due to deficiency of the third lubricant or leakage due to excess of the third lubricant.

“Grip feel” is a test for verifying shifting of Examples 1 to 9 and Comparative examples 1 to 9 with respect to the penis.

The evaluation of the “grip feel” was performed by a control test using an artificial vagina in which a plurality of (20) men each wearing the evaluation samples according to Examples 1 to 9 and Comparative examples 1 to 9 performed insertion and thrusting a plurality of times with respect to an artificial vagina under the same conditions and evaluated shifting with respect to the penis on a three-point scale.

The evaluation results of the "grip feel" represented evaluations of B: excess or deficiency of the second lubricant never occurred and shifting never occurred, C: slight shifting occurred but not an issue, and D: shifting due to deficiency of the second lubricant or leakage due to excess of the second lubricant.

“Unwinding feel” is a test for verifying unwinding performance of Examples 1 to 9 and Comparative examples 1 to 9 with respect to the penis.

The evaluation of the “unwinding feel” was performed by a control test in which a plurality of (20) men each wearing the evaluation samples according to Examples 1 to 9 and Comparative examples 1 to 9 performed a test of unwinding the evaluation samples along the penis a plurality of times under the same conditions and evaluated the unwinding performance on a three-point scale.

The evaluation results of the "unwinding feel" represented evaluations of B: unwinding can be performed smoothly without inclusion of air between the evaluation sample and the penis, C: while slight inclusion of air between the evaluation sample and the penis occurs, the evaluation sample can be unwound without incident, and D: the evaluation sample cannot be smoothly unwound due to inclusion of air between the penis and the evaluation sample or the like.

“Comprehensive evaluation” represents a comprehensive evaluation on a four-point scale based on the evaluation results of the “sense of adherence”, the “sense of insertion”, the “grip feel”, and the “unwinding feel” described above.

The evaluation results of the “comprehensive evaluation” represented evaluations of A: optimal, B: good, C: slightly lacking but within an acceptable range, and D: unsuitable.

[0021]

[Table 1]