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Environmental Friendly Rubber Plasticizer HJA Series Products and Its Application

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Abstract: The physical and chemical properties and application of environmental friendly rubber plasticizer HJA series produced from SZ36-1 heavy naphthenic crude oil was introduced, and compared with similar foreign plasticizer. Vacuum distilled SZ36-1 heavy naphthenic crude oil had higher naphthenic content and aromatic content, and the environmentally friendly rubber plasticizers produced by hydrogenation-furfural combination refining process possessed similar physical and chemical properties as foreign plasticizer. The properties of SBR1763 compound with rubber plasticizer HJA1220 were comparable to that of the SBR1763 compound with foreign plasticizer. The rubber plasticizer HJA1824 with high aromatic content can be used in the tread compound of PCR tire by replacing the same amount of foreign environmental friendly aromatic oil. The plasticizer HJA0810 and HJA0214 were suitable for use in light-color rubber products.

Key words: rubber plasticizer; environmental friendly; heavy naphthenic oil; oil-extended styrene-butadiene rubber; tread compound

国内首套氢化苯乙烯-异戊二烯共聚物 工业化装置建成投产

中图分类号: TQ334.3 文献标志码: D

日前,国内首套热塑性弹性体SEPS(氢化苯乙烯-异戊二烯共聚物)工业化装置(年产2万t)在中国石化巴陵石化合成橡胶事业部建成投产。这标志着巴陵石化成为全球第3家采用具有自主知识产权核心技术工业化生产SEPS的企业,填补了我国SEPS产品研发和生产的空白。

SEPS是热塑性弹性体SIS(苯乙烯-异戊二烯-苯乙烯嵌段共聚物)加氢制得的高端环保升级产品,既保留了SIS的优异性能,又在耐热、耐光及耐热氧性能方面显著提高。SEPS主要用于润滑油

增粘、透明弹性体和膜制品制造,以及用在、润滑油脂、光缆密封油膏、化妆品和涂覆革等中。我国SEPS过去全部依赖进口,进口产品价格高昂。

2012年,巴陵石化和北京化工研究院合作开发的年产2万t新型SEPS生产成套技术工艺包通过中国石油化工集团公司总部的审定。2014年,巴陵石化和北京化工研究院参与的“SEPS成套技术开发”项目被列为中国石化“十条龙”科技攻关项目。近两年,巴陵石化在SEPS生产技术方面取得突破性进展,SEPS加氢度、成品中金属离子含量均达到控制指标,这为该产品的工业化生产扫除了关键技术障碍。

(钱伯章)